2025 Chevrolet Low Cab Forward

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Download the Body Builder Manual or sections for important information about up fitting your Chevrolet LCF Medium Duty Commercial truck. Please check Section 0 to review information that has changed since your last visit as the manual is updated from time to time to include the latest information available. All printed material, specifications, and drawings contained in the Chevrolet LCF Medium Duty Body Builder Manual are based on the latest information available at the time of publication / posting. The manufacturer reserves the right to discontinue or change, at any time, without notice specifications, options, materials, equipment, design, and models.

Information contained in the manual includes:

- FMVSS safety standard
- EPA requirements
- OE recommendations
- Cautions for successful application up fitting and Frame modification procedures

2025 Body Builder Manual Revisions				
Revision Number	**Date**	**Section**	**Page(s)**	**Description**

Introduction

This manual has been provided as an aid to final stage manufacturers in determining conformity to the applicable Emission Control and Federal Motor Vehicle Safety Standards. Final stage manufacturers should maintain current knowledge of all Emission Regulations and Federal Motor Vehicle Safety Standards and be aware of their specific responsibility regarding each standard.

Any manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly alert to all effects, direct or indirect, on other components, assemblies or systems caused by such alterations. No alterations should be made to the incomplete vehicle that directly or indirectly results in any either component, assembly or system being in nonconformance with applicable Emission Regulations or Federal Motor Vehicle Safety Standards.

General Motors will honor its warranty commitment (for the cab-chassis only), to the ultimate consumer, provided:

1. The final stage manufacturer has not made any alterations or modifications which do not conform to any applicable laws, regulations, or standards, or adversely affect the operation of the cab-chassis; and
2. The final stage manufacturer complied with the instructions contained in this manual with respect to the completion of the vehicle. Otherwise, the warranty becomes the responsibility of the final stage manufacturer.

The final stage manufacturer is solely responsible for the final certification of the vehicle and for compliance with Emission Control and Federal Motor Vehicle Safety Standards. The information contained in this manual has been provided for the final stage manufacturer's information and guidance.

This manual contains information pertaining to the:

- 3500 HG & 4500 HG Gas Regular Cab
- 3500 HG & 4500 HG Gas Crew Cab
- 5500 HG & 5500 XG Gas Regular Cab
- 5500 HG & 5500 XG Gas Crew Cab
- 4500 HD, 4500 XD, 5500 XD Diesel Regular Cab
- 4500 HD, 4500 XD, 5500 XD Diesel Crew Cab
- 6500 & 7500 XD Diesel Regular Cab

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CAUTIONARY NOTES:

Electrical Sensitivity and Battery Relocation Warning

Starting with the 2011 Model year Diesel and 2012 Model year Low Cab Forward Trucks, these products are more sensitive to poor electrical integrity of the starting circuit when compared to previous year models. This is due to the ever increasing electrical demands from the base vehicle that includes the new emissions componentry as well as more sophisticated engines and transmissions. The control modules for these devices require healthy electrical circuits without significant voltage drops through the supply and return circuits. Relocation or modification of batteries coupled with insufficient wire gauge, poor terminal crimps, weak conductivity to frame rails, terminal corrosion, or loose bolts, could contribute to a possible no start condition.

All Fluids and Lubricants Caution

Any fluids or lubricants added to the chassis during the final manufacturing process must meet GM's fluids and lubricants specifications. These fluids and lubricant specifications vary based on model year and chassis model code. A recommended fluids list based on model and model year can be found in the Vehicle Owner's Manual.

Low Speed Applications for LCF Chassis

Any low-speed vehicle applications using the Aisin Transmission such as sweeper, highway striping and roadside mowing airport service must adhere to the following guidelines to prevent the overheating of the automatic transmission fluid.

Factory Recommendation: Select Range 1 for low-speed operations under 11 mph, (18km/h).
Select Range 2 for low-speed operation under 22 mph, (36km/h).

Auxiliary Transmission Cooler Warning

Installation of Auxiliary automatic transmission fluid cooler will void warranty on transmission/engine.

Transmission Temperature Warning Lamp

Automatic transmission fluid temperature warning lamp illuminates over 140°Centigrade/284°Fahrenheit.

Tapping into Engine Cooling System

Do not connect any auxiliary heating or cooling devices to the chassis cooling system. Engine calibrations are based on the original cooling system and any changes may adversely affect performance or diagnostics. The chassis cooling system is part of the vehicle emission system and is also used to thaw DEF fluid in diesel trucks and meet mandatory emission thaw times.

Air Conditioning Modification

No modifications or alterations should be made to the factory provided air conditioning system.

Engine Front End Accessory Drive (FEAD) Modification

Modifying or installing additional equipment onto the engine accessory drive can impact engine performance and emissions regulations compliance.
If modifications are made to the FEAD, impact to certification compliance and subsequent actions are solely the responsibility of those making the modifications.

CAUTIONARY NOTES CONTINUED:

Brake Override Logic

This ECM logic has been adopted to enhance the safe operation of the vehicle. The brake override logic disables the accelerator pedal input and protects against vehicle malfunction in cases where the accelerator pedal and brake pedal are operated simultaneously, or if unintended driver acceleration pedal operations are detected.

No–Start Condition: Clicking or Banging from Starter
2012-2015MY Chevrolet LCF Equipped with 5.2L (4HK1) Diesel Engines

It is possible to experience a no-start condition accompanied by a clicking or banging-type noise from the starter. This condition presents itself when vehicle battery voltage is low. The insufficient voltage/current will cause an improper ground for the X-17 starter relay. As a result, the starter will not remain engaged to start the engine. This is not an indication of a defective starter, alternator, or ECM.
The following is a list of common causes for low battery voltage. Inspect these items as possible causes for the described condition before further diagnosis.

1. Extreme low ambient temperatures (below 10°C / 50°F). The chemical reactions inside of batteries take place more slowly when the battery is cold. The vehicle systems therefore have less energy to work with when it tries to start the engine.
2. Vehicles stored for long periods without proper battery charging and maintenance.
3. Batteries that have been relocated further away from the starter than the original designed location.
4. Batteries or battery cables that have been replaced with improper gauge.
5. Corroded battery terminals and cables.
6. Vehicles that are started and stopped multiple times without allowing the charging system to replenish the batteries' charge.
7. Excessive use of electrical equipment such as electric lift gates.
8. Interior and exterior lighting left "On" without the engine running.

NOTE: Do not diagnose starters, alternators, ECM's or other no-start conditions prior to ensuring the battery is fully charged and none of the above common causes exist

Fuel Tank Caution

Fuel fill kit must be installed on cab chassis if it will be driven for an extended distance. Note: fuel tank kit provides venting for the fuel tank.
CAUTION: DO NOT RESTRICT OR KINK THE FUEL TANK VENT HOSE. Operating this vehicle with a restricted or kinked fuel tank vent hose may cause serious damage to the fuel tank and/or fuel injection pump. Continued operation may cause engine failure.

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)

ABS helps prevent the wheels from locking or from slipping when the brakes are applied under certain driving conditions.
ESC monitors the truck's steering wheel angle, individual wheel rotation speed, lateral G forces and more. When the system senses that the driver is at risk of losing stability, it alerts the driver via an on-dash warning light and automatically reduces engine output and applies braking pressure to help the driver maintain stability.
ABS and ESC systems are sensitive to chassis modifications. Please reference Section 2 – "Installation of Body and Special Equipment" prior to making modifications to the chassis.

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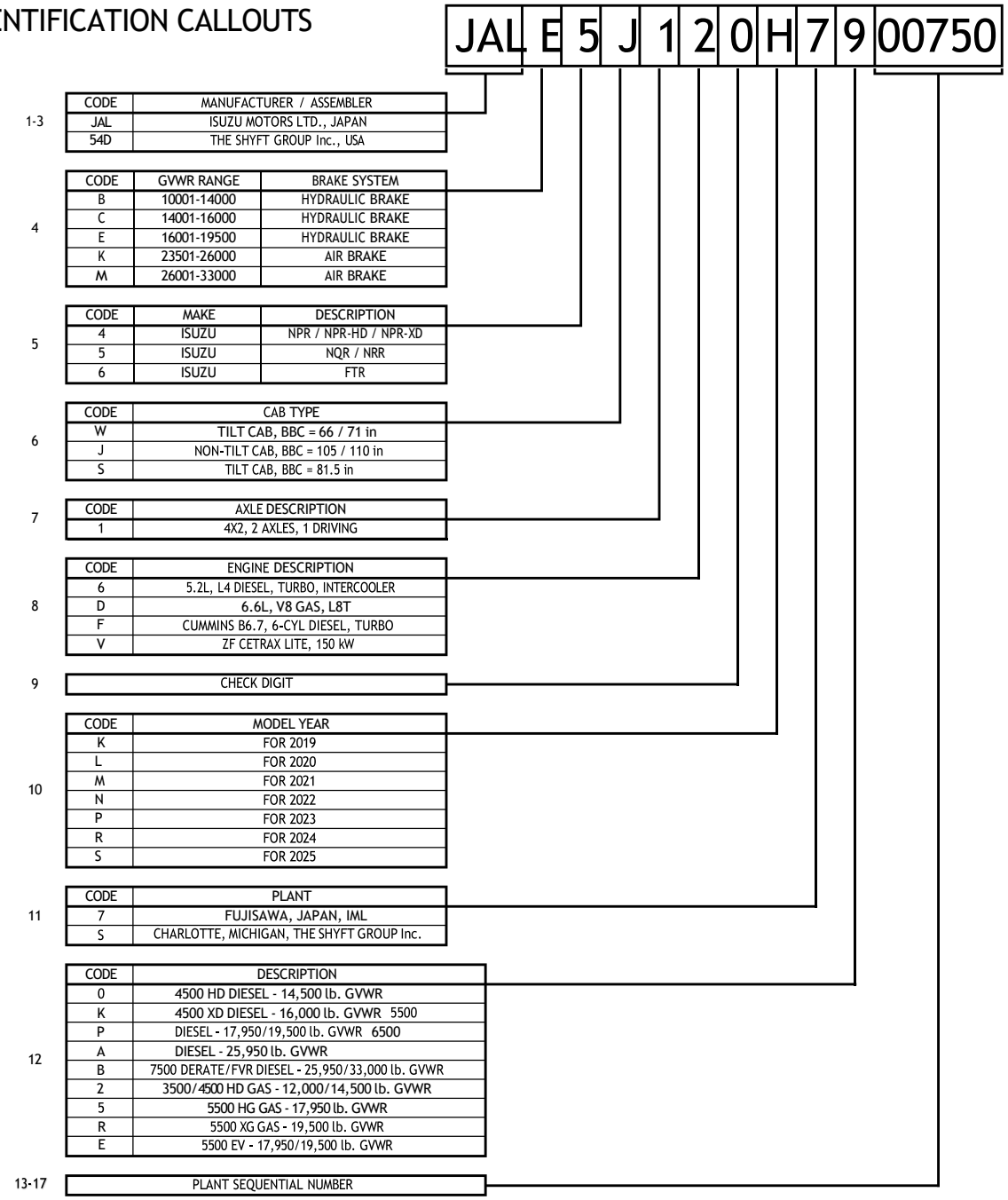
LCF MEDIUM DUTY V.I.N. IDENTIFICATION CALLOUTS


JAL E 5 J 1 2 0 H 7 9 00750
1-3
CODE | MANUFACTURER / ASSEMBLER
JAL | ISUZU MOTORS LTD., JAPAN
54D | THE SHYFT GROUP Inc., USA
4
CODE | GVWR RANGE | BRAKE SYSTEM
B | 10001-14000 | HYDRAULIC BRAKE
C | 14001-16000 | HYDRAULIC BRAKE
E | 16001-19500 | HYDRAULIC BRAKE
K | 23501-26000 | AIR BRAKE
M | 26001-33000 | AIR BRAKE
5
CODE | MAKE | DESCRIPTION
4 | ISUZU | NPR / NPR-HD / NPR-XD
5 | ISUZU | NQR / NRR
6 | ISUZU | FTR
6
CODE | CAB TYPE
W | TILT CAB, BBC = 66 / 71 in
J | NON-TILT CAB, BBC = 105 / 110 in
S | TILT CAB, BBC = 81.5 in
7
CODE | AXLE DESCRIPTION
1 | 4X2, 2 AXLES, 1 DRIVING
8
CODE | ENGINE DESCRIPTION
6 | 5.2L, L4 DIESEL, TURBO, INTERCOOLER
D | 6.6L, V8 GAS, L8T
F | CUMMINS B6.7, 6-CYL DIESEL, TURBO
V | ZF CETRAX LITE, 150 kW
9
CHECK DIGIT
10
CODE | MODEL YEAR
K | FOR 2019
L | FOR 2020
M | FOR 2021
N | FOR 2022
P | FOR 2023
R | FOR 2024
S | FOR 2025
11
CODE | PLANT
7 | FUJISAWA, JAPAN, IML
S | CHARLOTTE, MICHIGAN, THE SHYFT GROUP Inc.
12
CODE | DESCRIPTION
0 | 4500 HD DIESEL - 14,500 lb. GVWR
K | 4500 XD DIESEL - 16,000 lb. GVWR 5500
P | DIESEL - 17,950/19,500 lb. GVWR 6500
A | DIESEL - 25,950 lb. GVWR
B | 7500 DERATE/FVR DIESEL - 25,950/33,000 lb. GVWR
2 | 3500/4500 HD GAS - 12,000/14,500 lb. GVWR
5 | 5500 HG GAS - 17,950 lb. GVWR
R | 5500 XG GAS - 19,500 lb. GVWR
E | 5500 EV - 17,950/19,500 lb. GVWR
13-17
PLANT SEQUENTIAL NUMBER

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Installation of Body and Special Equipment

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)

IMPORTANT NOTES:

1. Do not relocate or modify the electro-hydraulic control unit.
2. Do not modify the electrical harness and connector(s) of ABS/ESC systems.
3. Do not modify the vacuum line(s) inside cab.
4. Do not use ABS/ESC component wiring to extract power or ground circuits for accessories or added equipment.
5. Do not relocate or change the installation direction of the yaw rate sensor. The yaw rate sensor's operation is dependent on its position relative to the vehicle's center of gravity as well as the direction of its mounting. Altering the installed location or direction may cause the system to operate incorrectly.
6. Do not set final gear ratio to anything other than GENERAL MOTORS factory specification.
   The set value of the final gear ratio is programmed into the ABS/ESC control unit. If the final gear ratio is changed, the ABS/ESC systems may not operate correctly.
7. Do not operate the vehicle with any combination of tires other than GENERAL MOTORS factory-specified tires. When brakes are applied, the ABS/ESC systems monitor the rotational speed differences of the front and rear tires and rely on a preset value for the tire diameter programmed into the control unit. Using tires that are different from the preset values or using tires that vary greatly in diameter from front to rear, may negatively impact braking performance and cause abnormal operation of the ABS/ESC systems. Contact GM before equipping any tires other than GM factory- specified tires.
8. Contact GENERAL MOTORS before changing the wheelbase. Changing the wheelbase will impact the ABS/ESC system and will need to be reprogrammed. Only change to other factory offered wheelbases.
9. Do not upfit chassis into a tractor or 5th wheel (Hot Shot) configuration.

ADVICE: When installing the following components in the vicinity of ABS/ESC equipment (e.g., electro-hydraulic control unit, speed sensor, yaw rate sensor, steering sensor, etc.), maintain more than 100mm (3.94in) of clearance:

- Communication radio devices and their antennas.
- Motors, relays, and other devices that generate noise.

Wires for the ABS/ESC components are located within the main vehicle harness. In order to help prevent interference with the ABS/ESC wires and signals, do not route antenna wiring near the main vehicle harness.
ESC calibration is necessary when replacing and/or removing any of the following components (contact a Chevrolet dealership for more details):

- Electro-hydraulic control unit and/or yaw rate sensor.
- Steering sensor and/or steering-related components and steering wheel.

ADAS (Advanced Driver Assistance System)

IMPORTANT NOTES FOR TRUCKS EQUIPPED WITH ADAS:

1. When changing the wheelbase on a truck equipped with ADAS, only change to other factory offered wheelbases. Changing the wheelbase will impact the ADAS system and will need to be reprogrammed.
2. Please contact applications engineering for guidelines on LCF Chassis frame modifications when the vehicle is equipped with ADAS.

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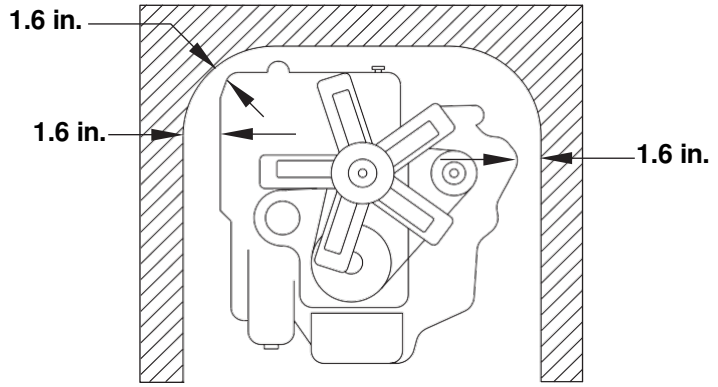
Installation of Body and Special Equipment

Engine

At least 1.6 inches of clearance should be maintained around the engine. At least 1 inch of clearance should be maintained to the front and rear of the engine. No obstacles should be added in front of the radiator or intercooler.



Front and Back Clearance: 1 inch

Figure 1

Transmission

The transmission is removed from the rear. Enough clearance must be provided to allow for rearward movement of the transmission assembly. At least 2 inches of clearance should be maintained above the automatic transmission to allow for transmission removal. At least 1 inch of clearance should be maintained to the front and rear of the transmission. Clearance should be sufficient to allow 5 to 6 inches of unrestricted movement of the transmission assembly. In addition, provide at least 2 inches of clearance around the control lever on the side of the transmission to allow free movement without any binding.

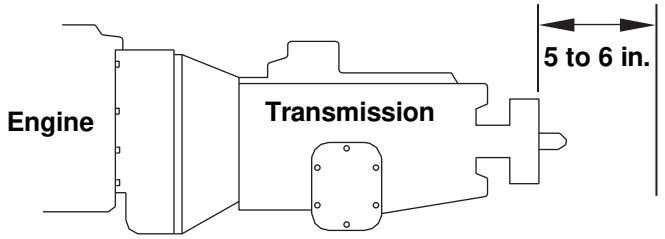
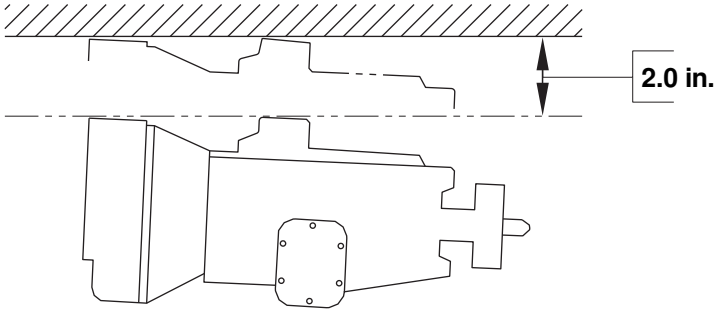


Figure 2



Front and Back Clearance: 1 inch

Figure 3

Front and Center Propeller Shafts

At least 1.25 inches of clearance should be maintained around front and center propeller shafts.

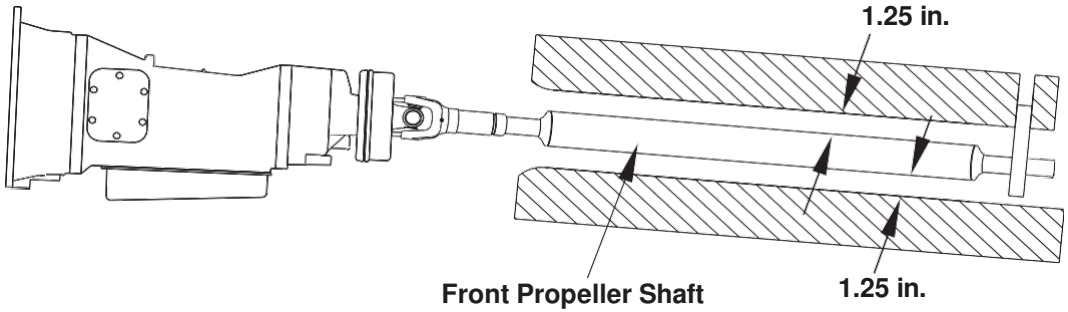


Figure 4

Rear Propeller Shaft

With the rear springs at maximum deflection, at least 1.25 inches of clearance should be provided over the rear propeller shaft.

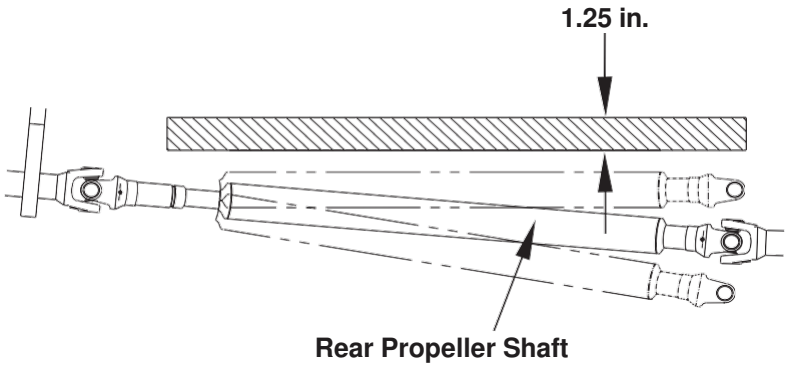


Figure 5

Rear Wheel and Axle

The design and installation of the body should allow sufficient clearance for full vertical movement of the rear wheels and axle when the vehicle travels over rough or unleveled surfaces.

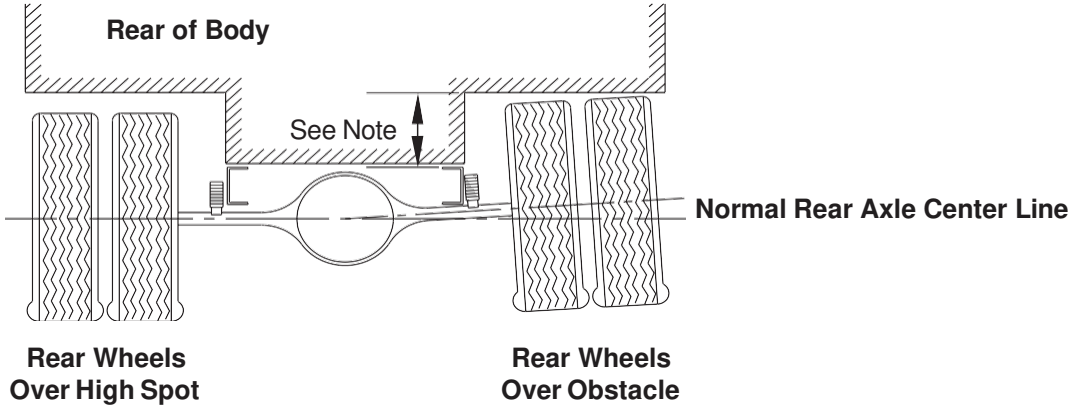


Figure 6

Note: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

Other Clearances

The transmission control cable may be broken if it is bent by or interferes with the body and its fixtures. To prevent this, 1 inch of minimum clearance should be provided. When cable is detached from body mounting, be sure not to bend the cable.

Accessibility to the grease nipple on the rear spring bracket/shackle should be provided so that serviceability with a grease gun is not hampered.

Parts	Location	Minimum Clearance (in)
Brake Hose	Axle Side	6.7
	Frame Side	1.6
Shock Absorber	Axle Side	2.4
	Frame Side	1.2
Parking Brake Cable	-	1.2
Fuel Hose	-	1.6

Figure 7

Exhaust Pipe Clearances

If flammable materials such as wood are used in the body, provide at least 3.9 inches of clearance between the body and any parts of the exhaust pipe, DPF/ SCR Package. If it is impossible to maintain the minimum clearance, use a heat shield. Also use a heat shield if an oil pump or line is located above the exhaust pipe, muffler or catalytic converter.

1. Clearances around SCR system components must be greater than 1.0 inch at all times to avoid potential contact between the body and the exhaust components. The 1.0 inch allows for thermal expansion and assembly tolerance of the exhaust system. It does not account for dynamic movement in the body due to road conditions and other loads. Body companies are instructed to adjust this 1.0 inch clearance as required to account for body displacement while driving. This guidance does not supersede guidance or exhaust clearances for temperature sensitive or flammable components.
2. Exhaust temperatures have not changed since the introduction of DPF in 2007.

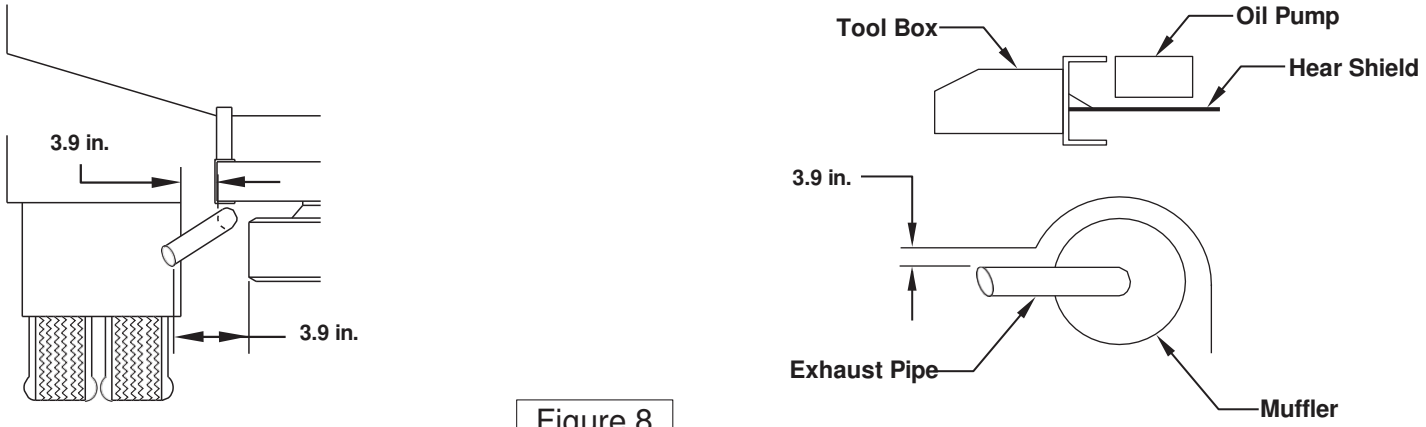


Figure 8

Exhaust Heat Clearances

During the DPF regeneration cycle, exhaust gas temperatures are hot. Therefore, care should be exercised in placement of the pipe's end location and angle. Do not locate any body components or equipment around the exhaust pipe's end area.

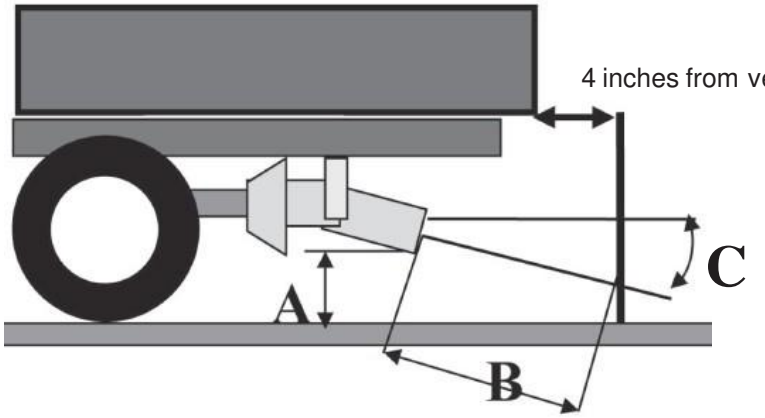


Figure 9

Dimension	Clearance
A	8 in. (minimum)
B	18 in. (minimum)
C	45 deg. (maximum)

Exhaust System

The exhaust system has a crucial role in meeting 2010 EPA regulations. In order to maintain compliance with the 2010 EPA emissions levels the Diesel Particulate Filter (DPF) and SCR package must not be moved. The distance between the engine exhaust manifold down pipe and Diesel Particulate Filter (DPF) / Selective Catalytic Reduction Package (SCR) must be maintained and the pressure in the system must be sustained at a constant level. Due to increased temperatures in the exhaust system during the regeneration cycle and the heat stress caused by these temperatures, body builders should closely evaluate the placement of equipment and provide protection to these added components as needed.

Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) Restrictions

1. The DPF/SCR has exhaust pressure pipes and temperature sensors. Care must be taken when a body is installed so as to not damage pipe sensors.
2. The DPF/SCR should be free from impact or vibration during body installation.
3. The DPF/SCR must have enough room for disassembly of the unit for service and cleaning.
4. The DPF/SCR switch in the cab should not be removed or disabled. No modification or relocation of the DPF/SCR unit, pressure pipes, and sensor is permitted.

Exhaust System Modification

Modification of the exhaust system should be avoided. If modifications are absolutely necessary, the following points should be maintained.

1. Maintain the clearance specified in the table below between all parts of the exhaust system and any fuel lines, brake lines, brake hoses, electrical cables, etc. The exhaust outlet should not point toward any of these parts.

Component	Clearance Dimension
Brake Lines	2.4 in. or more. If the combined section of a group of parallel brake lines is more than 7.8 in., a clearance of 7 in. or more should be provided.
Flexible Brake Hoses	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Wiring Harnesses and Cables	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Steel Fuel Lines	3.1 in. or more.
Rubber or Vinyl Fuel Hoses	5.9 in. or more.

2. If a toolbox is installed, it should preferably be made from steel. If a wooden toolbox is installed, at least 7.8 inches of clearance should be maintained between the toolbox and any parts of the exhaust system.
3. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the noise level meets appropriate standards.
4. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the emission levels meet appropriate standards.
5. Exhaust system component temperatures are sufficient to ignite flammable materials; efforts should be made to prevent flammable materials from interacting with the exhaust system.

DPF/SCR Heat Shield Removal

The exhaust external heat shield does not impact vehicle emissions or emissions system durability. This shield can be removed or modified in order to facilitate body or equipment mounting, but the completed vehicle manufacturer should ensure that, when completed, the exhaust will be adequately shielded to prevent unintentional contact with hot exhaust components, and that heat transfer to body components is not so high as to present safety or durability risks. Detailed information on removal of the heat shield can be found in the service manual.

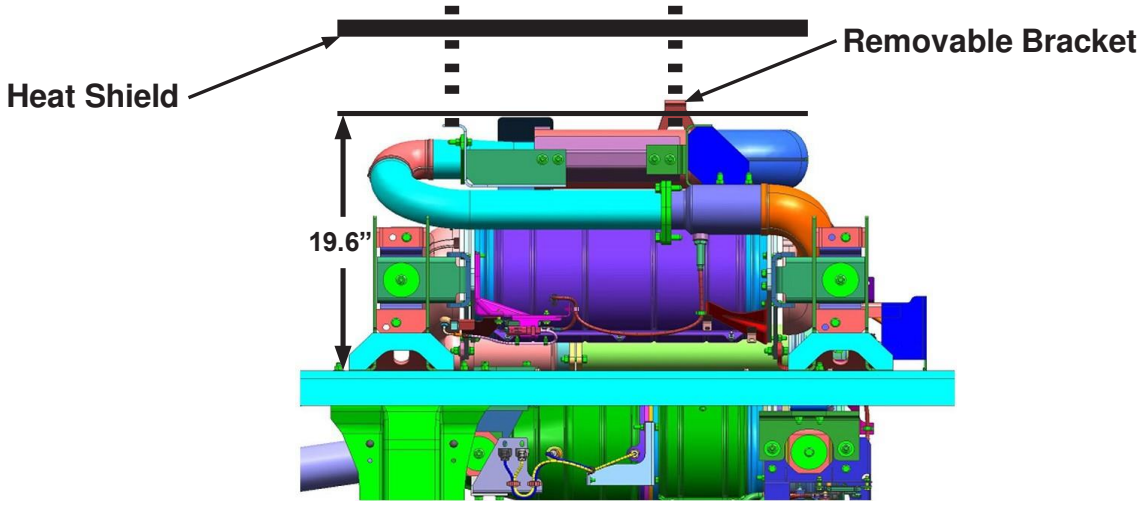


Figure 10

3500, 4500 & 5500 No Modification Zones

The DPF/SCR unit **CANNOT** be modified or moved. The DEF tank and pump **CANNOT** be modified or removed. DEF lines and coolant lines **CANNOT** be modified or rerouted.

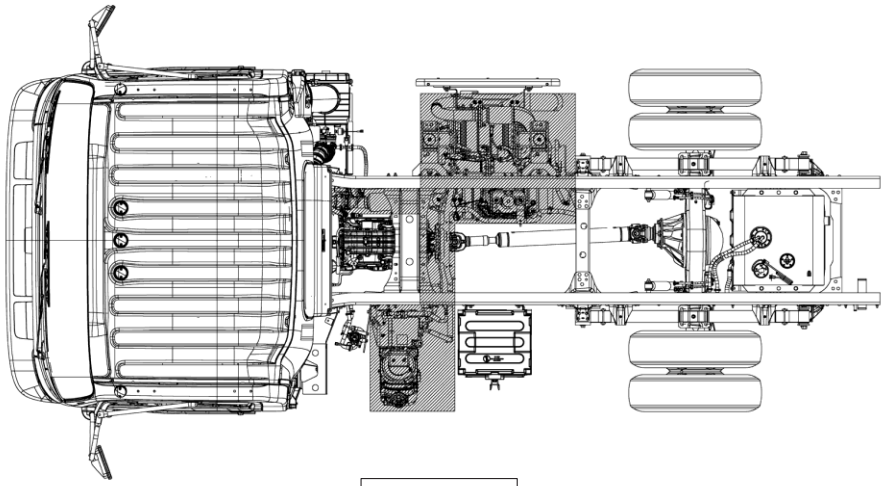


Figure 11

Gas (6.6L Engine) No Modification Zones

The vehicle exhaust, evaporative system, and fuel tank are integral parts of the evaporative/engine and emission/diagnostic control system and **CANNOT** be modified or rerouted.

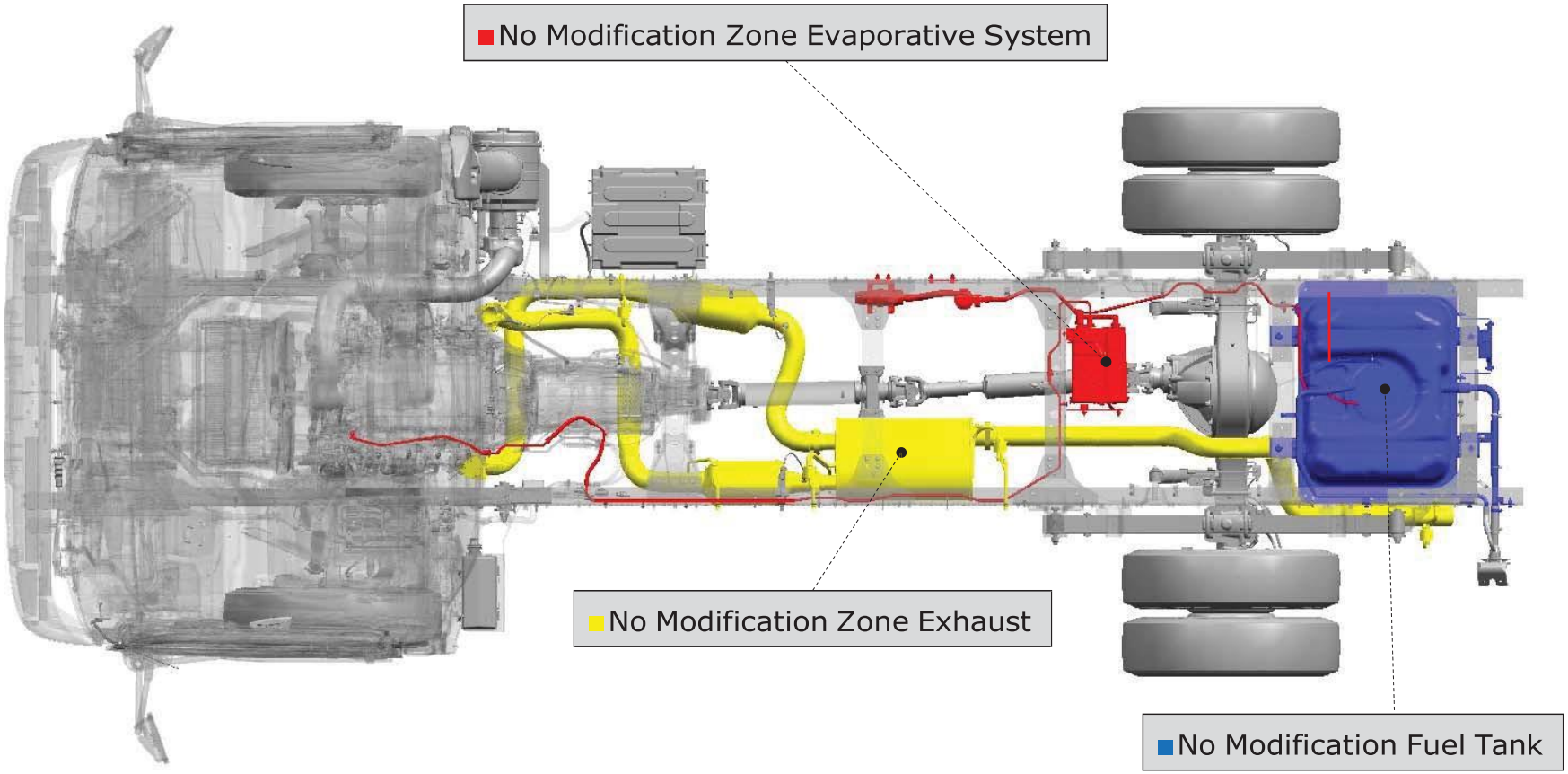


Figure 12

Body Installation

Mirrors

The Chevrolet LCF chassis will accommodate up to 96-inch-wide bodies without modification to the mirror brackets. Bodies wider than 96 inches and up to 102 inches wide will require modified mirror brackets. This Modification can be made at the port and the vehicle order/label will indicate a Regular Product Option (RPO) of IU2 indicating “Mirror Bracket for 102 wide body”. The brackets can also be modified by the Chevrolet Dealer or the Body Company by installing mirror brackets ordered from GM Parts.

Sidestep Door Installation Recommendations

1. Floor of body should be at least 10” above frame rail (2.5” wood + 4” long sill + 3” cross sill + 1.125” floor).
2. Forward end plate of step well area can interfere with SCR system.
3. All body components should maintain a minimum 1.0” of clearance to exhaust components UNDER ALL (DYNAMIC) CONDITIONS. (Body company will need to add to this 1.0” clearance to account for flex or movement in the body).
4. Outer heat shield on SCR system can be removed prior to mounting body if required for clearance. Care should be taken to adequately shield exhaust.
5. A driver’s side steps can also be accommodated depending on the door location. If the door is located behind the DEF tank, the battery may have to be relocated.
6. Access hatch for DEF tank fill may have to be added, depending on door location.

Special Equipment on the Chassis

When installing special equipment on the chassis, extra consideration must be given to the weight and construction of the equipment to assure proper distribution of the load. Localization of the load should be prevented. All special equipment should be properly secured into position. We recommend the use of subframe members when installing special equipment.

Subframe Design and Mounting

The sub frame assembly should be mounted as close to the cab as possible. It should be contoured to match the shape and dimensions of the chassis frame as closely as possible.

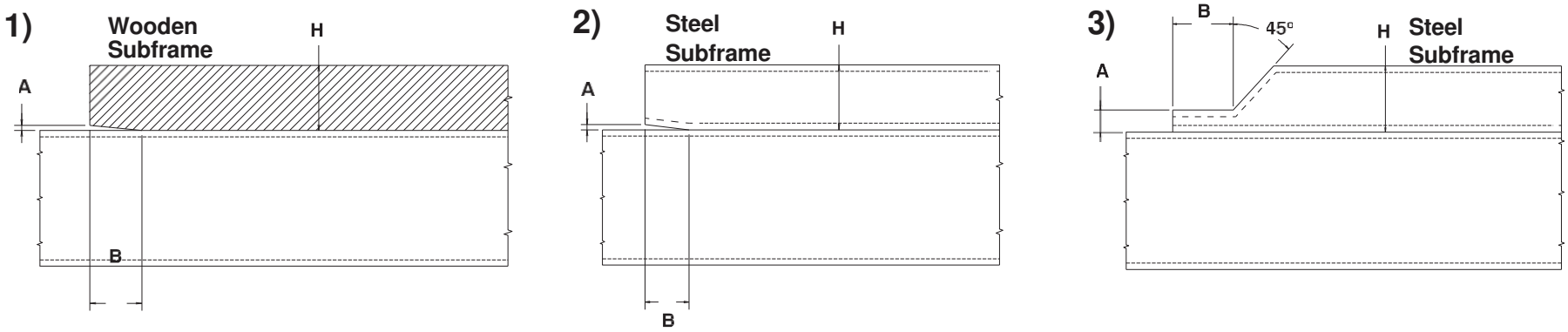
Crew Cab Body / Frame Requirements

The Chevrolet LCF will be available in two wheelbases, 150 and 176 inches with CA's of 88.5 and 114.5 inches respectively.
On this model chassis, GM will require that the body installed on the chassis have an understructure manufactured with any of the following structural steel “C” channels:

1. 4” x 1-5/8”, 7.5 lb./ft.
2. 5” x 1-3/4”, 6, 7 or 9.0 lb./ft.
3. 6” x 2”, 8.2, 10.5 or 13 lb./ft.

Subframe Contour

Contouring of the front end of the subframe members as shown in the three illustrations below will prevent stresses from being concentrated on certain areas of the chassis frame.



Drawing	A	B
1)	0.2 in.	$\frac{H}{2} \cong H$
2)	0.2 in.	H or greater
3)	$\frac{H}{3}$	H or greater

Figure 13

When using a steel subframe, do not close off the end of the subframe.

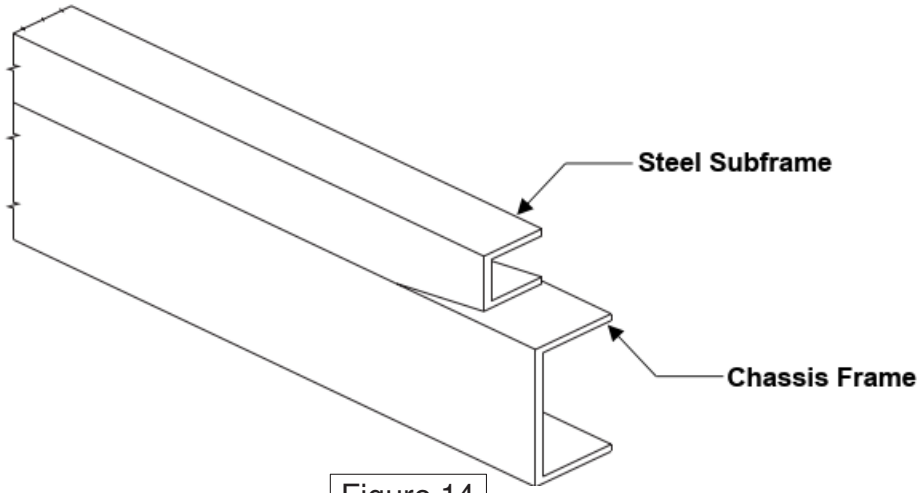


Figure 14

Prohibited Attachment Areas

Do not attach the subframe to the chassis frame with a bolt or bracket at the points indicated in the following illustrations.

1. At the front end of the subframe. The attaching bolt or bracket must be at least 2 inches behind the kick up point of the subframe (Figure 15).
2. Within 8 inches of bends in the chassis frame or the attachment points of any crossmembers (Figure 16).

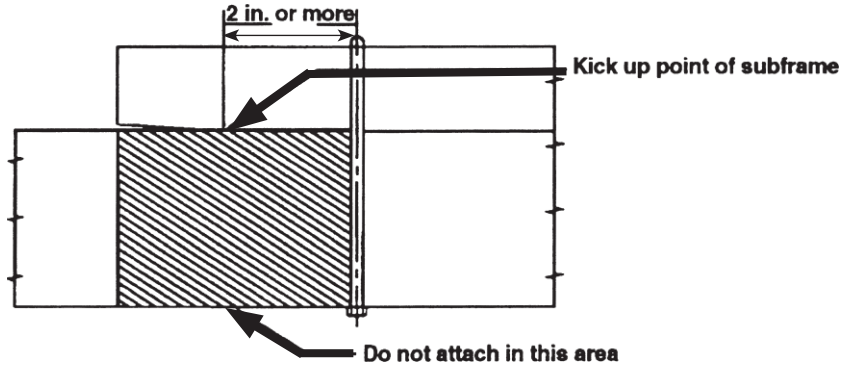


Figure 15

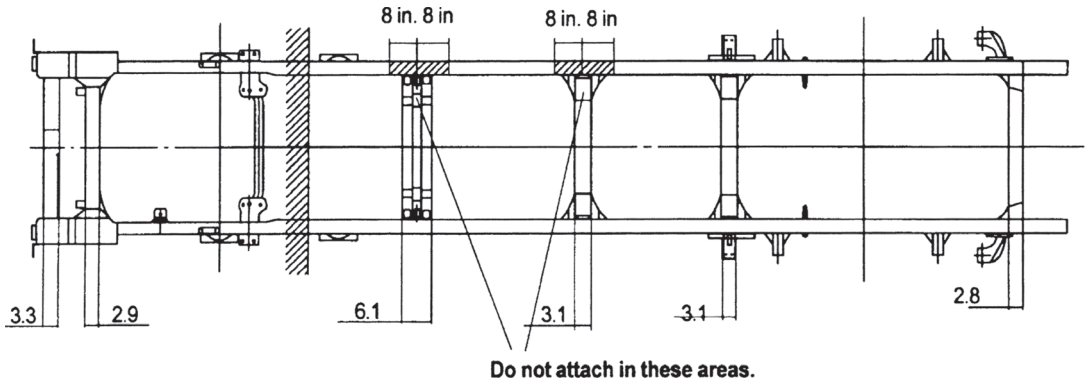
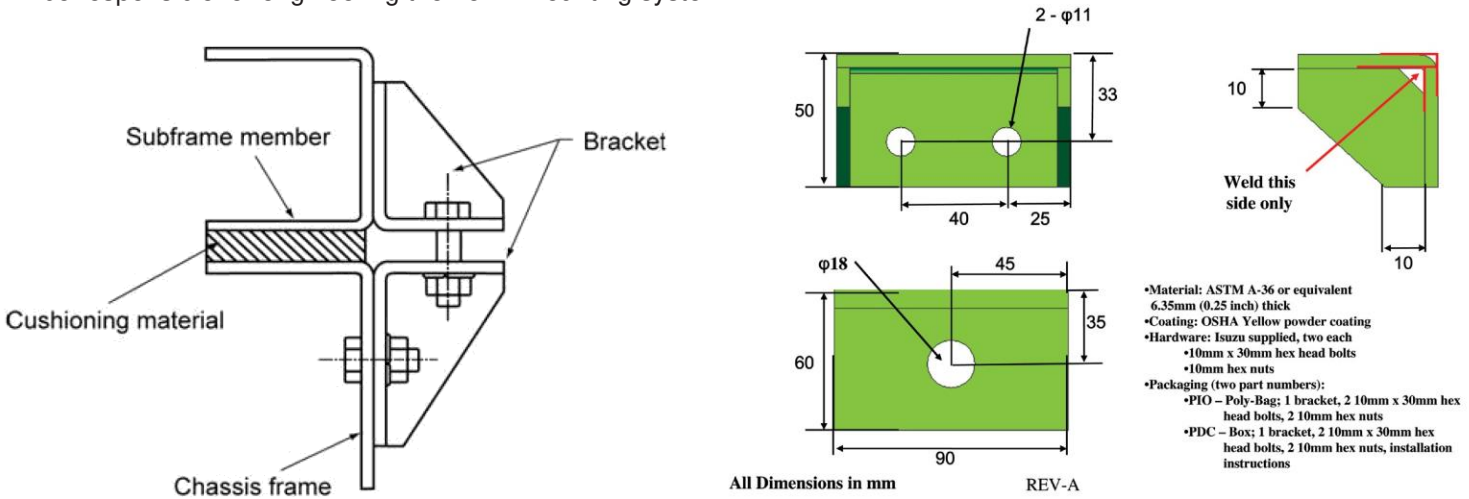


Figure 16

Subframe Mounting - Bracket Installation

Mounting brackets should be clamped to the chassis frame using bolts. For proper positions in which to install the bolts, refer to the section of this document "Modifications to the Chassis Frame." In addition to the illustrated bracket and U-bolts a shear plate may be required for adequately body mounting. The body company will be responsible for engineering their own mounting system.

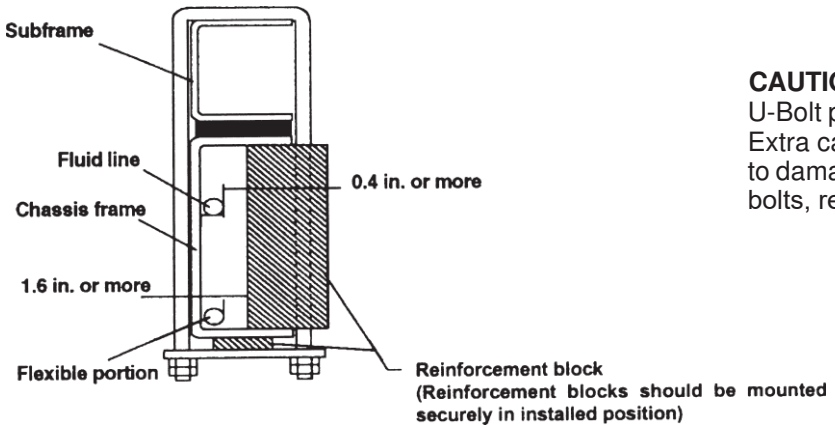


Note: Body mounting bracket will be painted "YELLOW" of easy identification

Figure 17

U-bolt Installation

When U-bolts are used to retain the subframe, reinforcement blocks must be installed in the frame members. This will prevent distortion of the frame flange as they are tightened. The drawing indicates the correct placement of reinforcement blocks. If you use wood blocks, be sure that there is sufficient clearance between them and any parts of the exhaust system. The use of J-bolts to retain the subframe is strictly prohibited. If any fluid lines or electric cables are located near the reinforcement blocks, you must provide at least 0.4 inches of clearance between rigid or stationary portions, and at least 1.6 inches between moveable or flexible portions of the lines.



CAUTION:
U-Bolt placement is critical with new emission systems and controls. Extra care must be taken when placing bodies on chassis so as not to damage these components. For the installation positions of the U-bolts, refer to "Prohibited Attachment Areas."

Figure 18

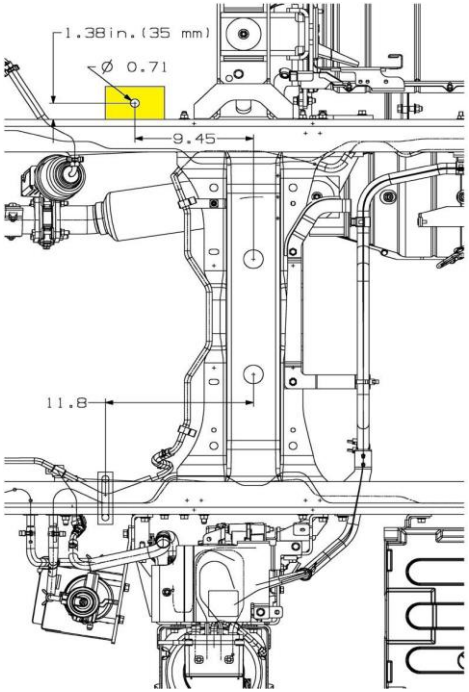
2025 Chevrolet Low Cab Forward

Front U-bolt and Mounting Bracket, Mounting Locations Ahead of Transmission

Mandatory location due to after treatment device location and interior frame components. The chassis will be supplied with one steel crush block in cab for left hand forward body attaching location as illustrated in the drawings below and one body mounting bracket (painted yellow) attached to the right-hand frame rail in the location shown in the drawings below. Body Builder will be required to design a mating bracket for attaching the body to the yellow painted chassis body mounting bracket (Ref Figure 17 for illustration of bolt clamping 2 brackets). No U-bolt type attaching allowed.

Front, RHS U-bolt on 150" Wheelbase Crew Cab interferes with after treatment system. GM will supply body mounting bracket on chassis to facilitate body mounting on the passenger side of the vehicle as illustrated in Figure 19 below.

Standard Cab - Body Mounting Bracket Location



Note: 4H Body Mount Kit - PN 2901400270

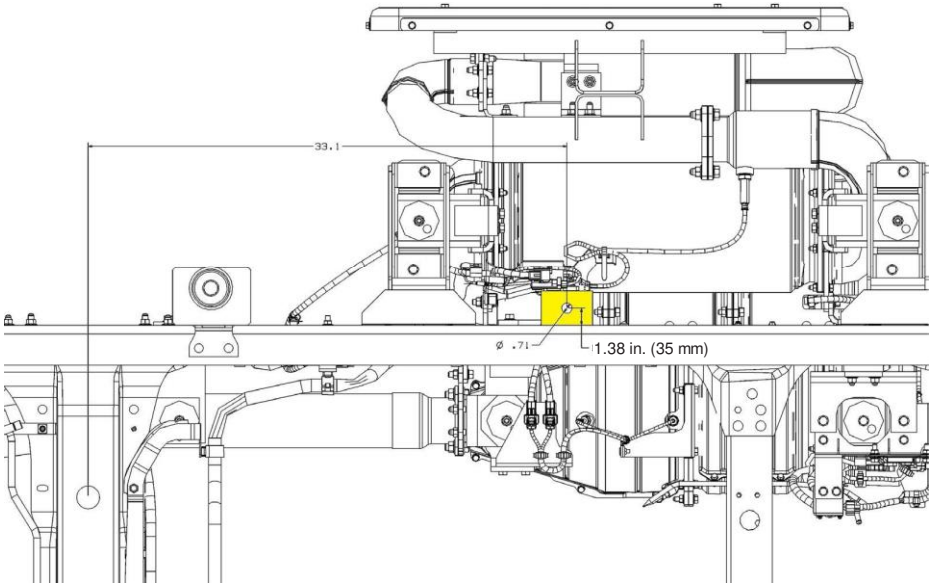
Crush Block and U-Bolt (Left Hand-Rail)

Body Mounting Bracket (Right Hand-Rail)

Figure 19

Forward

Crew Cab 150" WB - Body Mounting Bracket Location



Note: 4H Body Mount Kit 150" WB Crew Cab - PN 2901400250

Figure 20

Modular Frame Hole Pattern

The frame material is a heat-treated carbon manganese, and low alloy steel with good welding characteristics. The frame has an 40mm modular hole spacing standard. This standard pattern will assist with body mounting.

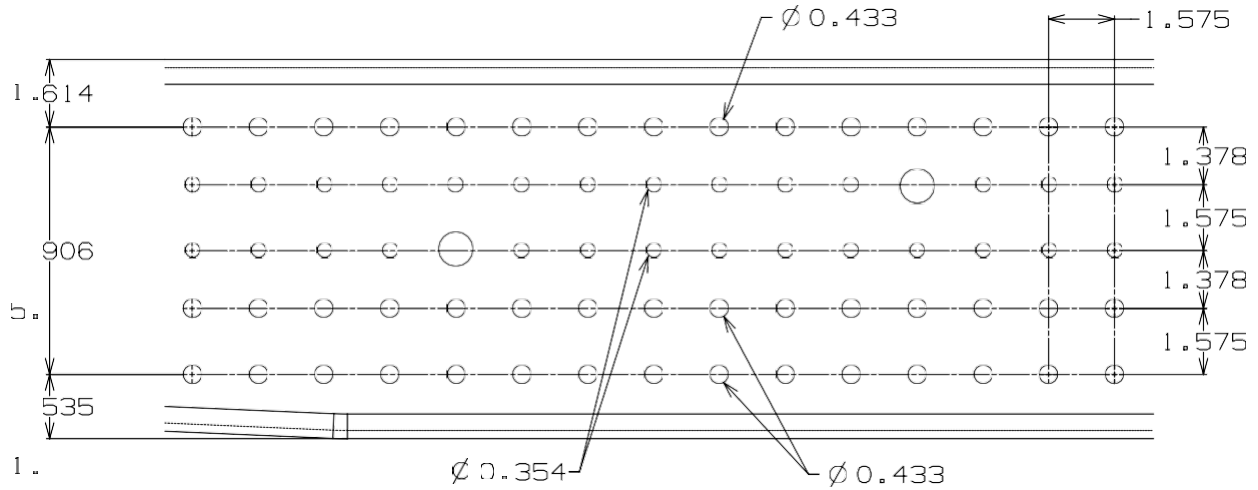
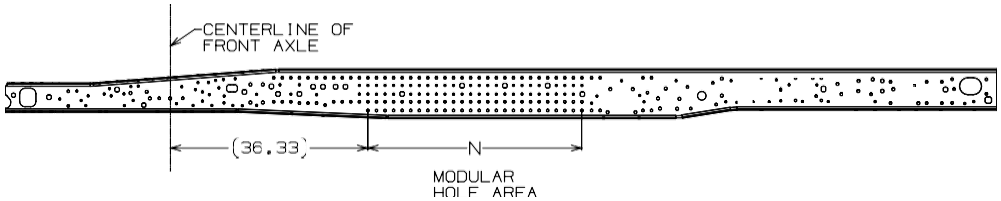


Figure 21

Depending on model, wheelbase, and chassis specification some holes are in use and some holes are intentionally missing. (Subject to change without notice).



WB (inches) 4500 HG, 4500 XD, 5500 XG, 5500 XD	N (inches)
109	39.37
132.5	63
150	80.3
176	105.5

Note: Re-tighten all attaching parts that are loosened during body installation.

Figure 22

Note: Dimensions in inches

Modification of the Frame

Modifications of the chassis frame should be held to an absolute minimum. Modification work should be performed according to the instructions in the following paragraphs.

When modification is complete, chassis frame members should be carefully inspected to eliminate the possibility of any safety-related defects.

NOTE: PLEASE REFER TO NOTES ON CHASSIS FRAME MODIFICATION WITH ANTILOCK BRAKES.

Working on Chassis frame

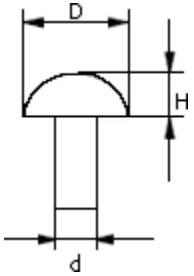
The chassis frame is designed and built with consideration for proper load distribution. Sufficient physical strength is provided when the load is evenly distributed. Installation of special equipment on the chassis frame can cause variations in load distribution. If even distribution of load is not kept in mind when the equipment is installed, localization of stresses on specific areas of the frame could cause cracking of the chassis frame members or other problems, even if the total weight of the equipment is within the design limit.

The chassis frame is designed as an integral unit. Therefore, we do not recommend cutting the chassis frame under any circumstances.

Drilling and Welding

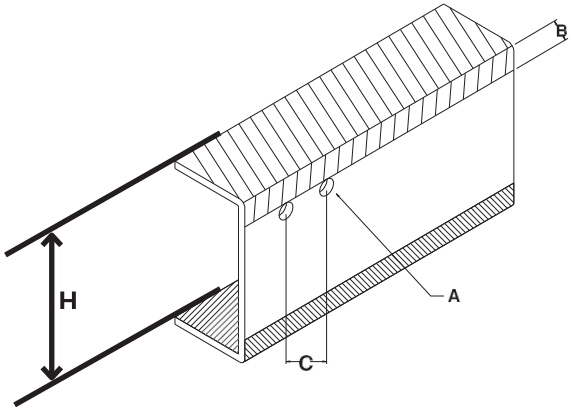
IMPORTANT NOTE: For vehicles equipped with electronic engines and or electronic or hydra-matic transmissions, electric arc welding must be done with the negative battery cable disconnected.

1. Do not drill or weld in the shaded portions of the chassis frame members (see below). Do not weld within 0.8 inches from the edges of any existing holes.
2. Hold the length of any welding beads within 1.2-2.0 inches. Allow at least 1.57.
3. All holes must be drilled. Do not use a torch to make any holes.
4. All riveting must be done with cold rivets. Do not use hot rivets.
5. The flange of the chassis frame must not be cut under any circumstances.
6. The subframe must be attached to the chassis frame with bolts. Do not weld.
7. Repaint exposed metal after drilling.



Rivet size detail:
D - 18mm (medium duty truck) / 21mm (heavy duty truck)
d - 11mm (medium duty truck) / 13mm (heavy duty truck)
H - 7.7mm (medium duty truck) / 11mm (heavy duty truck)

Figure 23



Dimensions:
A - no more than 0.59 inches in diameter
B - must be more than H/5 for welding and H/7 for holes
C - must be more than 1.57 inches
H = Frame Height

Figure 24

Reinforcement of Chassis Frame

Reinforcements must be installed to prevent the considerable variation in the section modulus. They must be welded so as to avoid localized stresses. The frame of the 3500, 4500 & 5500 is made of SAPH440 mild steel. The drawing below illustrates the correct and incorrect methods of frame reinforcement.

Welding

Keep reinforcement plates and chassis frame free from moisture and water. Avoid cooling with water after welding. Use a suitable means to protect pipes, wires, rubber parts, leaf springs, etc. against heat and effect of sputtering. Remove fuel tank assembly when welding portions near the fuel tank. Remove coat of paint completely when welding painted areas. Repaint exposed metal after welding.

When installing reinforcement by riveting or plug welding, place plugs or rivets in a zigzag pattern. When performing plug welding, be sure that electrical components, such as electric harnesses on the inner side of a chassis frame side member, are a minimum of 50mm apart from welding site. When inserting a rivet in a hole from which another rivet has previously been removed, the rivet should be 1 or 2mm larger in diameter than the removed one. Cold rivet only.

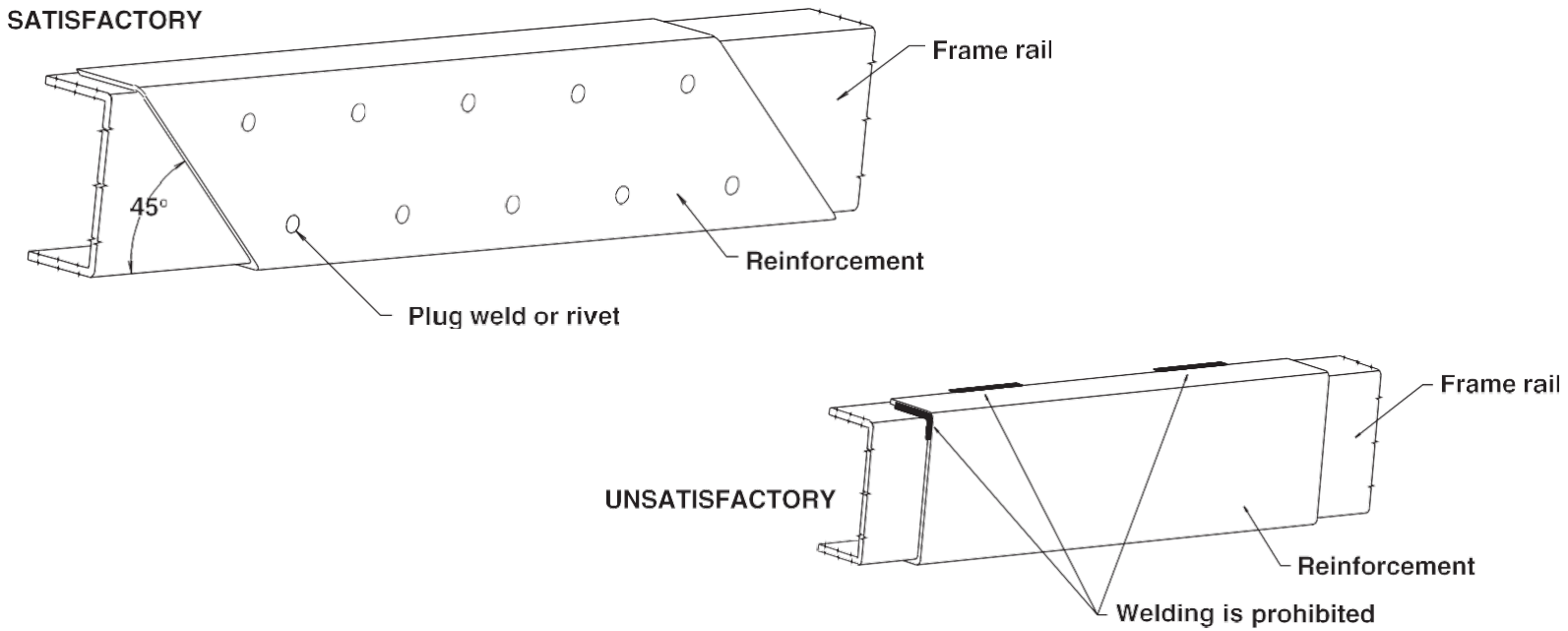


Figure 25

Crossmember Modification

Alligator type cross member - For alligator type, hole drilling, notch making, and welding are prohibited.

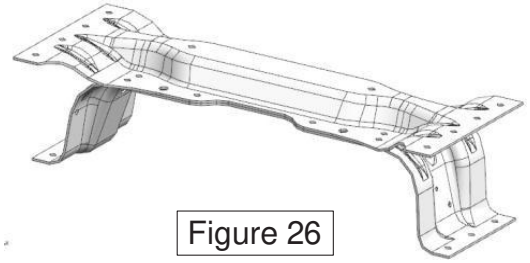


Figure 26

Channel type cross member: a – Allowable maximum hole diameter is 9mm, and this hole should be used only for piping or harness routing.
b – Prohibited area, no drilling should be done in this area.
c – See Figure 24 for minimum required distance.

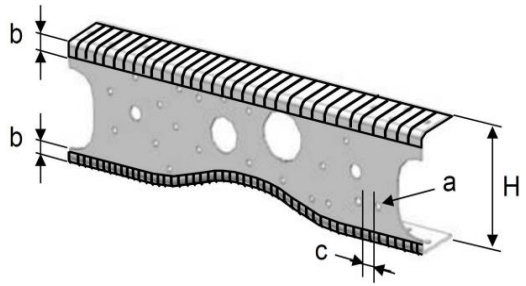


Figure 27

Gusset: Hole drilling and notch making are prohibited.

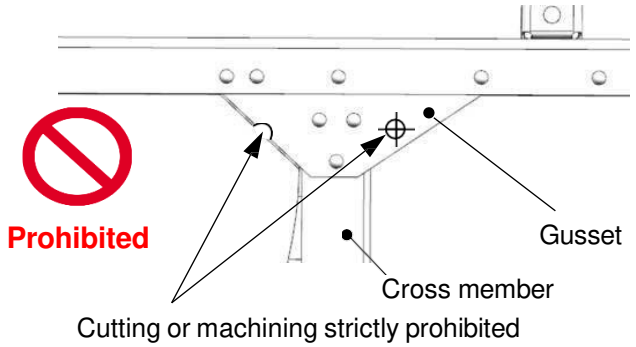


Figure 28

Rear Overhang Modification

If a body protrudes outward from the rear end of the chassis frame by 300 mm (11.8 in.) or more, lengthen the rear overhang of the chassis frame as indicated below. If it is necessary to cut the chassis frame, ensure that the cut location does not split existing holes.

1. Extension material
    - The extension material should be equivalent to that of side members. Refer to specification information for the vehicle model in consideration.
    - Thickness and bending radius of the extension material should be the same as that of side members. Refer to specification information for the vehicle model in consideration.

2. Installing extension material
    - **Extension material is 300mm or shorter:** Join extension material and chassis frame with a continuous butt weld around the entire circumference. After welding, grind finish weld surface.

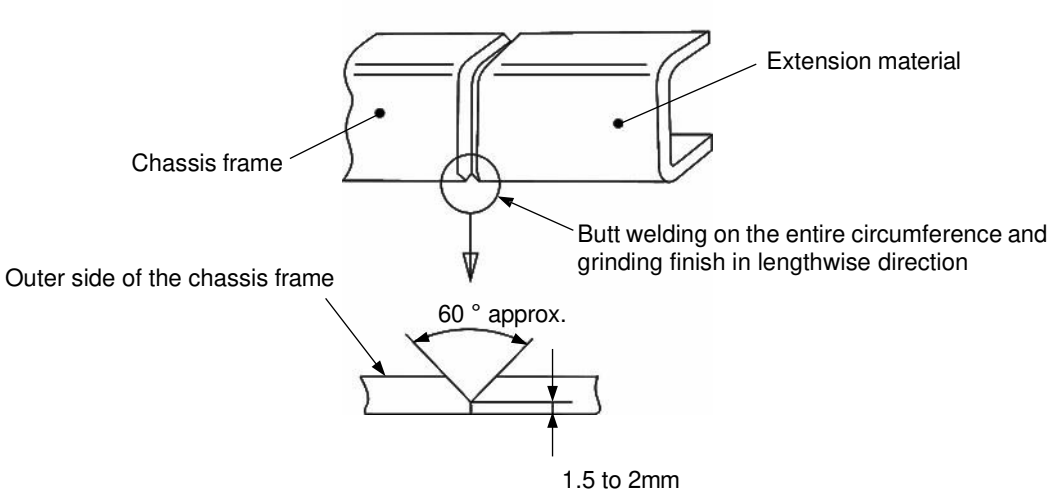
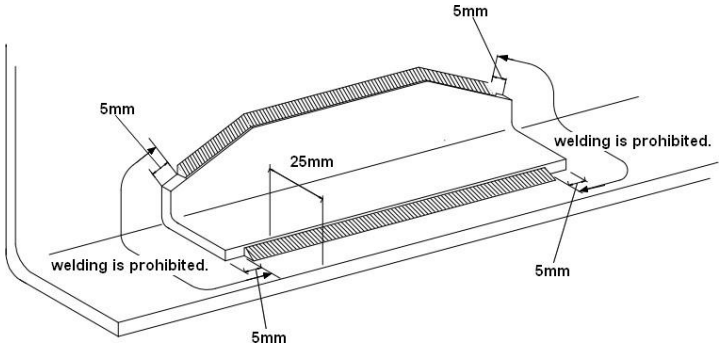

Extension material
Chassis frame
Butt welding on the entire circumference and grinding finish in lengthwise direction
Outer side of the chassis frame
60 ° approx.
1.5 to 2mm

Figure 29

- **Extension material is longer than 300mm:** Join extension material and chassis frame with a continuous butt weld around the entire circumference, and then fit a reinforcement on the inner side of the chassis frame and extension material.



Side member thickness [mm]	Reinforcement material thickness (recommendation value) [mm]
8.0 at minimum	7.0
7.5	5.5 to 7.0
7.0	4.5 to 6.0
4.0 to 6.0	4.5

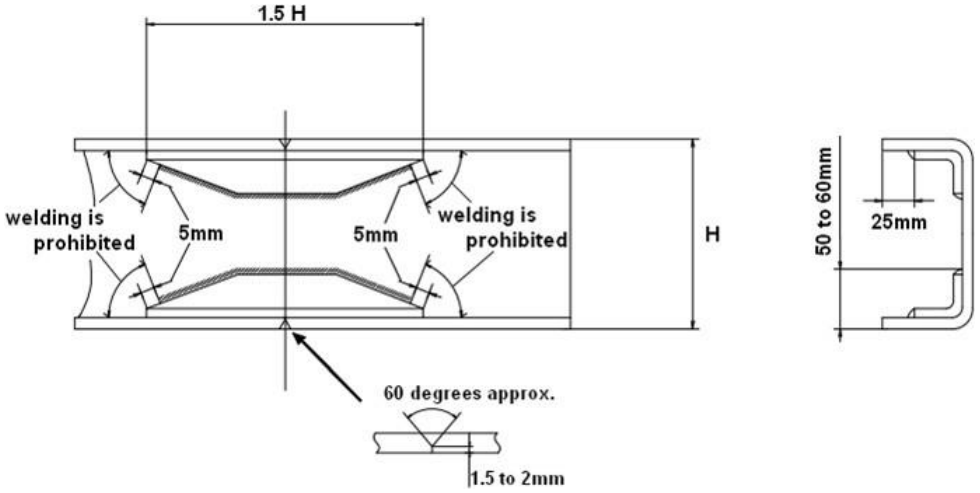


Figure 30

Fluid Lines

Do not disturb the layout of any brake lines or fuel lines unless absolutely necessary. When modification is needed, follow the instructions below carefully to ensure safety. Brake fluid lines must not be cut and spliced under any circumstances. We do not recommend the cutting or splicing of any fuel lines, but if it is absolutely necessary, be sure that the correct fitting and tools are used to form the joint, and then pressure test the joint. Steel lines are metric sizes.

Preparation of Additional Lines

1. Where possible, use only genuine GM lines as supplied by authorized Chevrolet dealers.
2. Use the correct metric flaring and bending tools to form the lines.
3. Avoid repeated bending. Do not use heat for flaring and bending the lines. Before and after forming the new lines, examine them carefully for scratches, distortion, dents, and the presence of any foreign matter.

Installation of Additional Lines

Install new lines away from adjacent parts and away from any sources of heat.

1. A minimum clearance of 0.4 inches must be maintained between lines. Where necessary, clip the lines into position in order to maintain this minimum clearance.
2. Minimize any crossing between lines. If a crossing is unavoidable, use the following procedure:
    a. At least 0.4 inches of clearance should be maintained between lines at the crossing point.
    b. If the 0.4 inches of clearance cannot be maintained, or if the lines are subject to vibration, clip them securely.
3. Plan the bends and clipping points of the lines to minimize vibration and the resulting fatigue.
4. Use rust-proofed clips and apply vinyl coating to the portions of the lines to be clipped.
5. Install new lines in positions where they are protected against water, dirt, grit, sand, rocks, and other foreign matter that can come from above or below or can be flung up by the wheels.

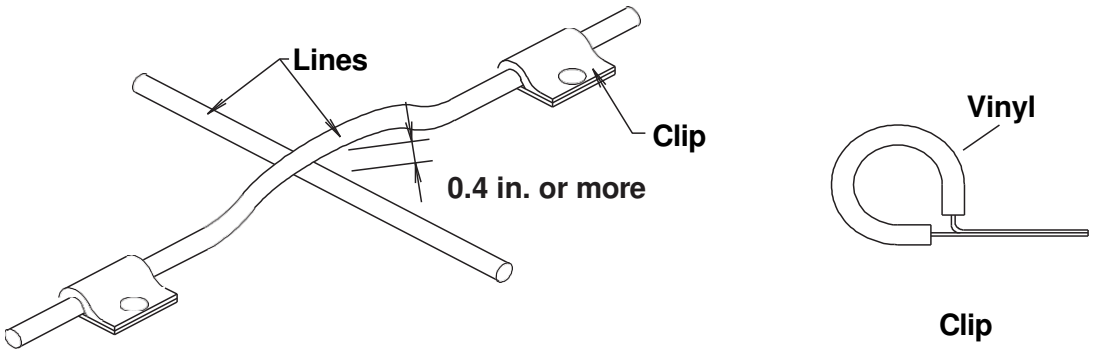


Figure 31

Electrical Wiring and Harnessing

To increase the reliability of the wiring, all frame harnesses are covered with corrugated vinyl tubing. The following instructions apply to extending or modifying these harnesses. See the Electrical Section for information on commonly used circuits.

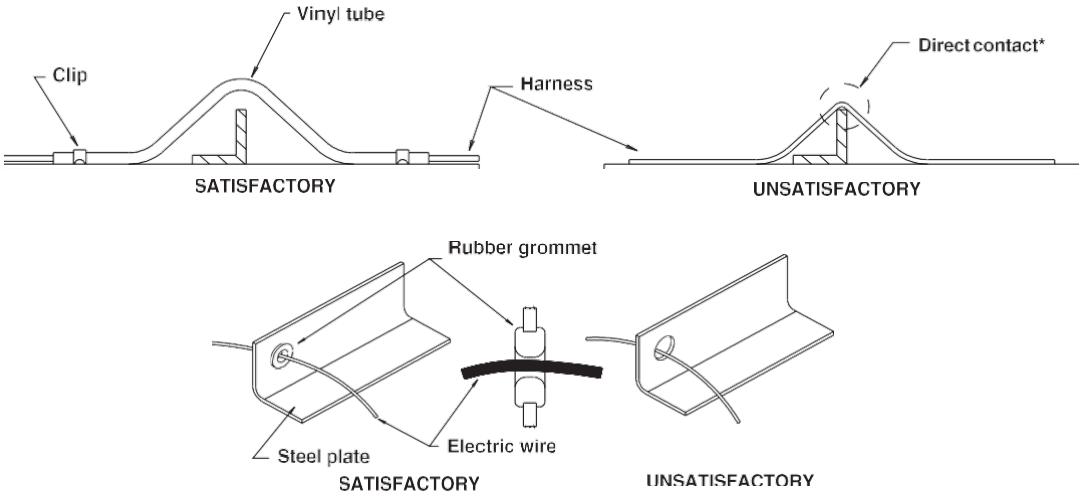
Wiring

1. Most wiring connections on GM vehicles are made with terminals. We recommend the use of terminals when splicing cables and wires.
2. When splicing, use new wire of the same gauge, and do not make splices inside the corrugated tubing.
3. When making connections to the end of the harness, make sure the connections are electrically perfect. Use insulating tape as needed to prevent the entry of water, which results in short circuits and/or corrosion.
4. When making new circuits, or modifying circuits already installed, make the cables only just taut enough to remove any slack. Use clips or grommets where required to protect cables from heat or sharp edges. When cables must run near the exhaust system, see the instructions in the “Exhaust System” section.
5. Always use rustproof clips and apply vinyl coating to that portion of the clips in direct contact with the harnesses. No scotch clips or connectors.
6. To minimize the vibration of the harness, clipping points should be set up according to the table below.
7. When changing the length of the battery cable, do not cut or splice the existing cable. Make up a new cable of the correct length and wire gauge for the load and distance, without splices.
8. When using connectors, use a socket (female) connector on the electrical source side and a plug (male) connector on the electrical load side to lower the possibility of a short circuit when disconnected.
9. When connecting cables to moving or vibrating parts such as the engine or transmission, be sure to maintain sufficient slack in the wiring to absorb the vibration. Follow the example of existing cables connected by GM. Keep flexible cables clear of other parts.
10. Do not use vinyl tape in the engine compartment. The heat will tend to make it peel off. Use plated steel clips coated with rubber or vinyl.
11. When locating auxiliary equipment or lines near the ECM caution should be used in order to protect the ECM from excessive vibration, heat or chemical reactions.

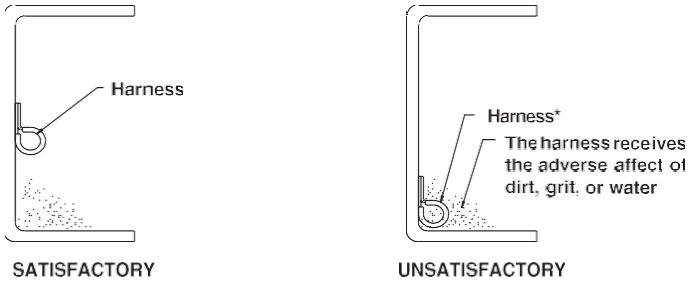
Wiring Harness Clip Distances

Harness Diameter	Clip Distance
less than 0.2 in.	less than 11.8 in.
0.2 in. ~ 0.4 in.	approx. 15.7 in.
0.4 in. ~ 0.8 in.	approx. 19.7 in.

Figure 32



* Cables should not be in contact with sharp edges or piercec holes.



* Harnesses should not be installed on inside lower face of the chassis frame.

* Harnesses should not be taped to fuel lines or other lines. A sufficient clearance should be maintained betweer harness and pipe lines.

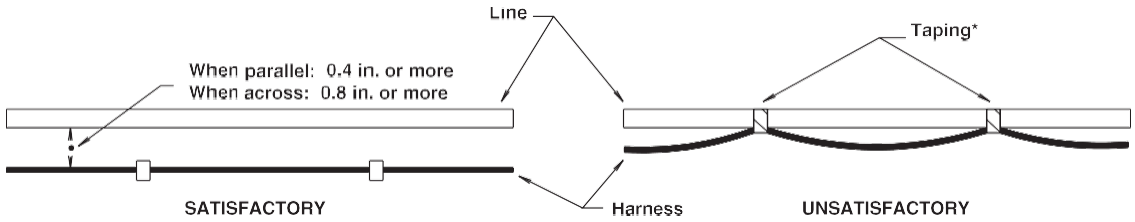


Figure 33

Wire Color Code

The electrical circuits of the Chevrolet LCF Chassis Cab are connected with low-voltage stranded wire for automotive applications. The color-coding standards are as follows for the Chevrolet LCF Chassis Cab:

(1) Black
(2) White
(3) Red
(4) Green

B Starter circuits and grounds
W Generator (alternator) circuit
R Lighting circuit
G Signal circuit

(5) Yellow
(6) Brown
(7) Light Green
(8) Blue

Y Instrument circuit
Br Accessory circuit
Lg Other circuit
L Windshield wiper motor circuit

Maximum Allowable Current by Wire Size

Harness Design Diameter (mm)	AWG Equivalent	No. of Wires/Wire Diameter (mm)	Cross Sectional Area (mm2)	Maximum Allowable Current (Amps)
100	00	217/0.80	109.1	363
85	0	169/0.80	84.96	305
60	1	127/0.80	63.84	248
50	1	108/0.80	54.29	223
40	1	85/0.80	42.73	191
30	2	70/0.80	35.19	171
20	4	41/0.80	20.61	123
15	6	84/0.45	13.36	93
8	8	50/0.45	7.952	68
5	8	65/0.32	5.228	51
3	12	41/0.32	3.297	39
2	14	26/0.32	2.091	29
1.25	16	16/0.32	1.287	21
0.85	18	11/0.32	0.8846	17
0.5	20	7/0.32	0.5629	13

Reference: The values given in the “maximum allowable current” column are based on the ambient temperature condition of 104°F with temperature increase of 104°F.

Figure 34

Electrical System Modifications

Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc. Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance. Any add-on wiring needs to be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat. Care must be exercised that existing vehicle interfaces do not have their current load capabilities exceeded, and that the respective control devices are not overloaded. Added wire size should be at least as large as the wire to which it is attaching in order for fuse protection to be maintained.

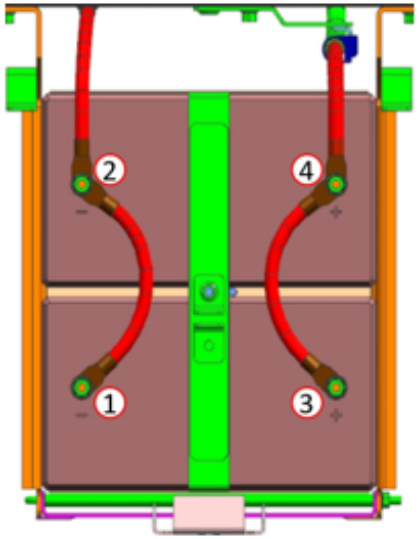
A Packard electric wiring repair kit is available through Kent-Moore (P/N J38125-B) (Phone # 1-800-345-2233). This kit contains instructions, tools and components for making repairs to wiring harness components. This kit would also greatly assist in accomplishing necessary add-on wiring such as body marker lamps, so that system reliability/durability is maintained.

Electrical wiring components can be obtained through your authorized Chevrolet dealers. Packard Electric components are also available through Power and Signal (www.powerandsignal.com). Power and Signal may also be able to assist in making necessary wiring additions by providing custom wiring stubs or jumpers to your specifications.

CAUTION: Before servicing any electrical component, the ignition key must be in the LOCK position and all electrical loads must be OFF, unless instructed otherwise in GM service procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Do not disconnect cable within 3 minutes after turning the ignition key to the Lock position. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

ELECTRICAL CAUTION: Please see bulletin on the subject of “NO-START CONDITION – CLICKING OR BANGING FROM STARTER 2012-2015MY Chevrolet LCF Equipped with 5.2L (4HK1) Diesel Engines”.

Battery Terminal Tightening Torque



No.	NUT SIZE	TORQUE
① ~ ④	3/8-16 (inch)	15±2 (N·m)

Figure 35

Fuel System

Relocation of the fuel tank, or installation of additional fuel tanks, is not recommended. If modifications to the fuel system are unavoidable, follow these recommendations:

1. Maintain adequate clearance between the fuel tank and any other device or structure.
2. Do not connect any additional fuel hose.

Rear Lighting

Brackets installed are temporary. Please do not use these brackets for body installation.

Serviceability

No matter what other modifications or changes are made, access to components requiring daily preventive maintenance or other routine service must not be obstructed. This includes the following items:

1. Inspection, filling and draining of engine oil and cooling water.
2. Inspection, filling and draining of transmission fluid.
3. Adjustment, removal, and installation of the fan belts.
4. Inspection, filling and removal of the battery and battery cover.
5. Inspection and filling of brake fluid.
6. Inspection and bleeding of the brake system and servo unit.
7. Maintenance of clearance for tightening of check bolt on brake safety cylinder.
8. Operation of the spare tire carrier, including mounting and dismounting of the spare tire.
9. Adjustment, removal, and installation of distributor and/or cover.

Wheelbase Alteration

With certain applications, it may become necessary to alter the wheelbase of the chassis. The following pages provide the suggested guidelines for accomplishing either shortening or lengthening of the wheelbase.

Shortening/Lengthening the Wheelbase Without Altering the Frame

Since the frame is an integral part of the chassis, it is recommended for the frame not be cut if it is avoidable. When shortening or lengthening the wheelbase on some models, it is possible to do so without cutting the frame. This is possible on models which have a straight frame rail. If the chassis does not have a straight frame rail, it may still be necessary to cut the frame. For instructions on shortening or lengthening these chassis, refer to the "Altering the Wheelbase by Altering the Frame" section of this book. Otherwise, the wheelbase may be shortened or lengthened by removing the rear suspension, drilling new suspension mounting holes at the appropriate spot in the frame, and sliding the rear suspension, suspension liner, and suspension crossmembers forward or aft.

The suspension and suspension crossmembers' rivet holes left in the frame rail flange must be filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut. When shortening/lengthening the wheelbase in this manner, the following guidelines must be adhered to:

1. All frame drilling must comply with the DRILLING AND WELDING section of this book.
2. All rivet holes left in the frame rail flange from the suspension and suspension crossmembers must be either filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut.
3. The components required to be slid forward or aft are the suspension and suspension hangers, suspension crossmembers and suspension frame liner.

Altering the Wheelbase by Altering the Frame

Even on a straight frame rail, it may be desirable to cut the frame and lengthen or shorten the wheelbase rather than simply sliding the rear suspension back or forward. The following section offers some guidelines and suggestions for cutting and lengthening or shortening the frame.

Glossary of Terms – Chassis Wheelbase Alteration

CA – Length from back-of-cab to rear axle centerline in inches.
AL – Added length (in case of a lengthened wheelbase). Difference between WB (new) and WB (old).
SL – Shortened length (in case of shortened wheelbase). Difference between WB (old) and WB (new).

1. Determine the added length (AL) or shortened length (SL) required to lengthen or shorten chassis. (For added wheelbase: New CA = CA + AL; For shortened wheelbase: New CA = CA – SL.)

2. Obtain the material to be used as the insert for the lengthened wheelbase in the correct length (AL). The insert must have the same cross-sectional dimensions and yield strength as the original frame rail.

3. Divide the new CA by two (2). Measure new CA/2 from the center of the rear axle forward and mark this point on the chassis frame (see figure below).

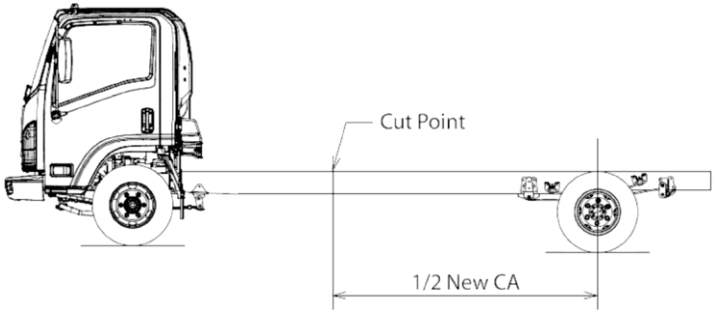


Figure 36

4. Cut the chassis frame at this point. If the wheelbase is to be lengthened, addition of the previously obtained insert (of length AL determined in step 1) will be made at this time. If the wheelbase is to be shortened, measure the distance (SL) forward of this cut and remove a length (SL) section from the chassis frame (see figure below). Ensure that an adequate area on the frame remains for the required addition of the necessary reinforcements. These are the only suggested places for cutting the frame and reinforcements but may be changed upon the advice of GM Upfitter engineering.

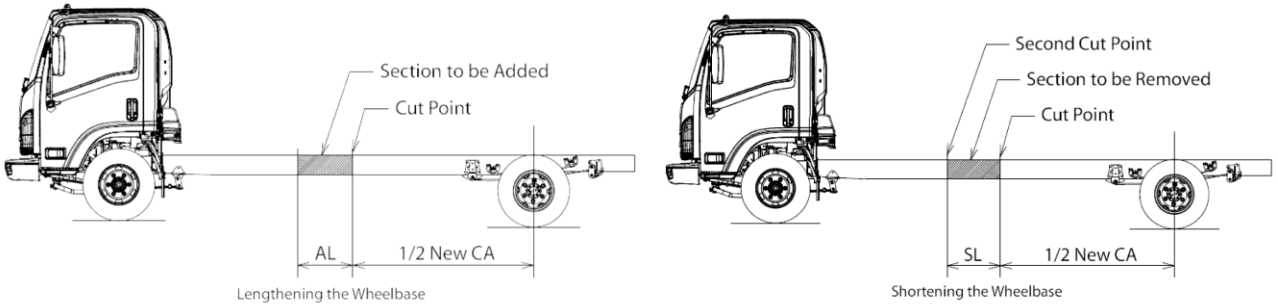


Figure 37

5. When welding the insert (length AL for wheelbase lengthening) to the original frame rail, a continuous butt weld must be used at the splices. When shortening the wheelbase, weld the ends of the chassis frame together with a continuous butt weld over the junction of the frame ends. Weld can be both the inside and outside of the frame rails using welding techniques prescribed by established welding standards (ref. SAE J1147) and in accordance with this manual. An example of this weld is shown below.

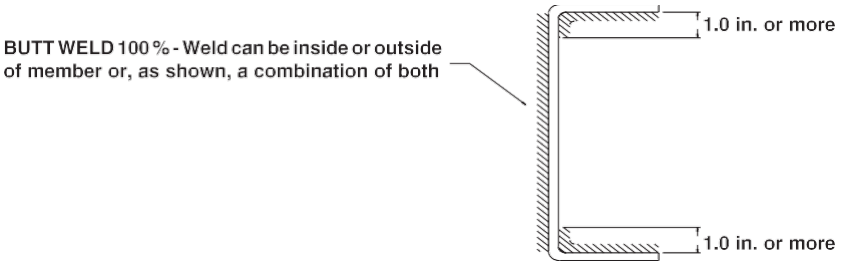


Figure 38

Installation position of reinforcement material

・Ends of outer reinforcement and inner reinforcement should not overlap.
・An end of outer reinforcement and cross member should not overlap.
・An end of outer reinforcement and spring bracket should not overlap.

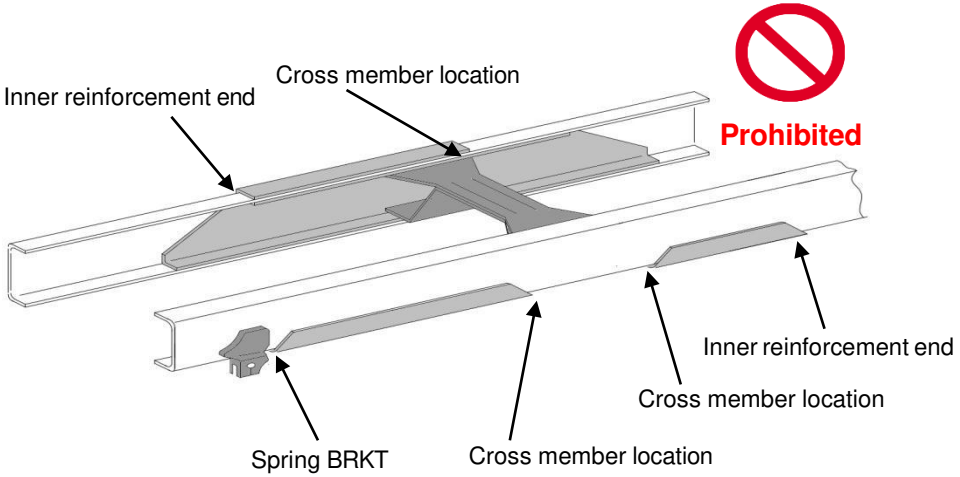
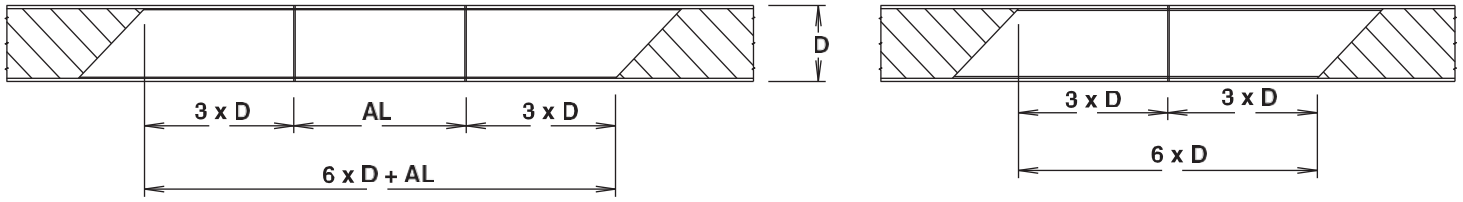


Figure 39

6. Determine the appropriate additional internal reinforcements which are required using this equation:

Reinforcement Length = AL + 6 x (original frame rail web depth).

The figure below shows how this reinforcement is to be placed over the extended or shortened section of the frame rail.



D = Original frame rail web depth

Figure 40

The suggested cross section of this reinforcement is a snug fit inner channel. If the new wheelbase exceeds the upper limit of the optional wheelbases of this model, i.e.; a “long bridge”, it may be necessary to use an “inverted L” reinforcement in addition to the snug fit channel reinforcement. Application Engineering should be consulted for approval of such cases. It should be noted that these methods of reinforcements, and any other methods which may be used, require a 45° angled cut at both ends to avoid stress concentrations in the frame (note the figures under item 7).

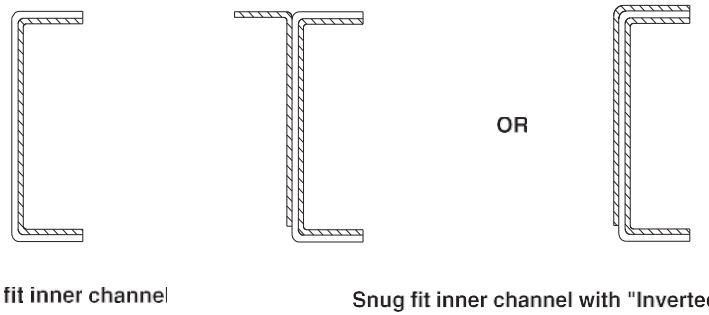


Figure 41

7. The reinforcements must be fastened securely to only the web of the original chassis frame rail. The reinforcement must be held rigidly in place using either HUC bolts, GRADE 8 bolts and hardened steel washers at both the bolt head and nut, or GRADE 8 flanged bolts and hardened steel washers at the nut. Below are some suggested bolt patterns. It should be noted that these bolt patterns must not align the bolts vertically, i.e.: the bolt pattern must be staggered.

Figure 42

8. Lengthening the frame will also require extending the brake lines, basic chassis electrical harness. It is recommended that the original brake lines be removed and replaced with brake lines of the same diameter as the original lines and of the appropriate length. The extended ABS brake lines must be supported back to the frame to prevent vibration. The electrical harness must be extended in accordance with the ELECTRICAL WIRING AND HARNESSING section of this book. ICTA offers an electrical extension harnesses for the chassis when a wheelbase is lengthened. One wheelbase longer is the recommended maximum wheelbase extension (please refer to the drive line section and particular models for number of drivelines and their maximum lengths). The extension of a wheelbase will require electrical extension harnesses.

Diesel: 2022i-2025 3500 HG 4500 HG 4500 HD 5500 PN 8977995790 CHAS WRG HARNESS ASM; QTY 1
2022i-2025 3500 HG 4500 HG 4500 HD 5500 PN 5097003210 CHAS RR WRG HARNCLIP; QTY10

9. The propeller shafts' overall length will also need to be lengthened or shortened. If the extension is within the limits of the optional wheelbases of the respective model, the exact propeller shaft lengths and angles are given on or about Page 12 of the respective sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
   a) Propeller Shaft Length - the maximum propeller shaft lengths (pin to pin) for the respective models are shown in the table below.
   b) Propeller Shaft Angles - the maximum propeller shaft angles, with respect to the previous shaft, are shown in the table below.
   c) The propeller shaft angles must be designed such that the angles will cancel to avoid propeller shaft whip.
   d) The propeller shaft yokes must be assembled such that the propeller shaft yokes are "in phase."

	GAS ENGINE				DIESEL ENGINE			
Chassis Model	**3500 HG**	**4500 HG**	**5500 HG**	**5500 XG**	**4500 HD**	**4500 XD**	**5500 XD DR**	**5500 XD**
Propeller Shaft Diameter (in.)	3.25	3.25	3.54	3.54	3.25	3.25	3.54	3.54
Maximum Propeller Shaft Length (in.)	50.7	50.7	54.3	54.3	50.7	50.7	52.9	52.9
Maximum Propeller Shaft Angle (in.)	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°

Figure 43

10. Extending the frame will also require relocation and/or addition of crossmembers. If the extension is within the limits of the optional wheelbases of the respective model, the exact crossmember locations and dimensions are given in the respective model sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
   a) The crossmember location will largely be determined by the propeller shaft lengths and where the center carrier bearing locations are for the propeller shaft assembly.
   b) A crossmember must be located at the front and rear spring hangers of the rear suspension (refer to the appropriate section of this book to see where these suspension crossmembers are to be located).

c) The crossmember must be constructed such that it supports both the upper and lower flange on each frame rail (see drawing on next page). A crossmember such as the one shown below may be constructed, or GM crossmembers may be obtained from your GM parts dealer.

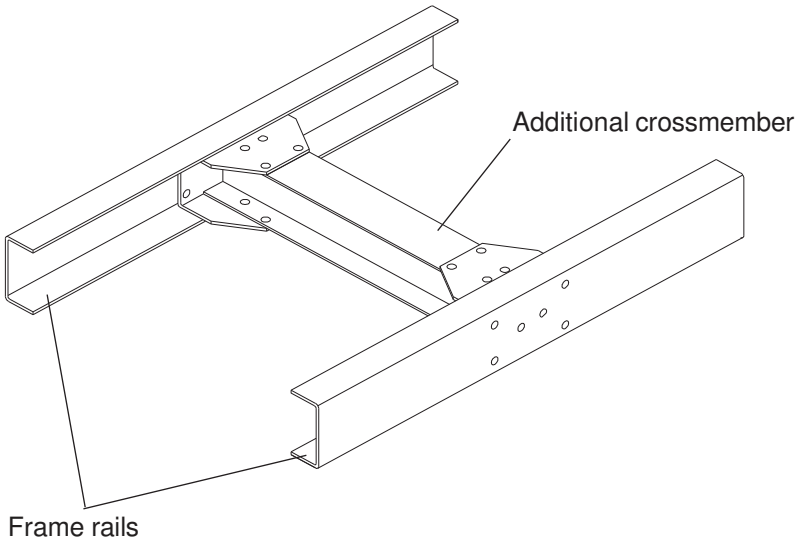


Figure 44

d) The maximum distance between crossmembers for the respective models is given in the table below.

MODEL	3500 HG	4500 HG	4500 XD	5500 XD
Maximum Distance Between Crossmembers (in.)	35.7	35.7	35.7	35.7

Figure 45

e) The drilling for any additional holes in the frame rails must comply with the DRILLING AND WELDING section of this book.

11. All other aspects of lengthening or shortening the wheelbase must comply with the applicable section of this Body Builder's Manual. For special applications and longer than recommended body lengths, GM Upfitter Engineering must be consulted for approval.

12. Please contact GM Upfitter Engineering for guidelines on LCF Chassis frame modifications when the vehicle is equipped with an anti-lock brake system.

2025 Chevrolet Low Cab Forward

Installation of Body and Special Equipment

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)

IMPORTANT NOTES:

1. Do not relocate or modify the electro-hydraulic control unit.
2. Do not modify the electrical harness and connector(s) of ABS/ESC systems.
3. Do not modify the vacuum line(s) inside cab.
4. Do not use ABS/ESC component wiring to extract power or ground circuits for accessories or added equipment.
5. Do not relocate or change the installation direction of the yaw rate sensor. The yaw rate sensor's operation is dependent on its position relative to the vehicle's center of gravity as well as the direction of its mounting. Altering the installed location or direction may cause the system to operate incorrectly.
6. Do not set final gear ratio to anything other than GENERAL MOTORS factory specification.
   The set value of the final gear ratio is programmed into the ABS/ESC control unit. If the final gear ratio is changed, the ABS/ESC systems may not operate correctly.
7. Do not operate the vehicle with any combination of tires other than GENERAL MOTORS factory-specified tires. When brakes are applied, the ABS/ESC systems monitor the rotational speed differences of the front and rear tires and rely on a preset value for the tire diameter programmed into the control unit. Using tires that are different from the preset values or using tires that vary greatly in diameter from front to rear, may negatively impact braking performance and cause abnormal operation of the ABS/ESC systems. Contact GM Upfitter before equipping any tires other than GENERAL MOTORS factory- specified tires.
8. Contact GM Upfitter before changing the wheelbase. Changing the wheelbase may impair the ESC system.
9. Do not upfit chassis into a tractor or 5th wheel (Hot Shot) configuration.

ADVICE:

When installing the following components in the vicinity of ABS/ESC equipment (e.g., electro-hydraulic control unit, speed sensor, yaw rate sensor, steering sensor, etc.), maintain more than 100mm (3.94in) of clearance:

- Communication radio devices and their antennas.
- Motors, relays, and other devices that generate noise.

Wires for the ABS/ESC components are located within the main vehicle harness. In order to help prevent interference with the ABS/ESC wires and signals, do not route antenna wiring near the main vehicle harness.

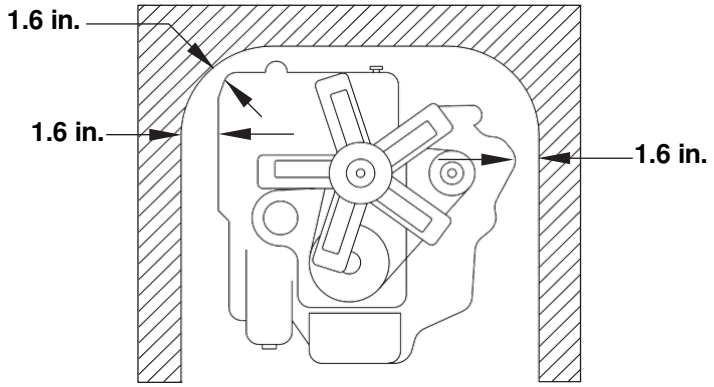
ESC calibration is necessary when replacing and/or removing any of the following components (contact a Chevrolet dealership for more details):

- Electro-hydraulic control unit and/or yaw rate sensor.
- Steering sensor and/or steering-related components and steering wheel.

Installation of Body and Special Equipment

Engine

At least 1.6 inches of clearance should be maintained around the engine. At least 1 inch of clearance should be maintained to the front and rear of the engine. No obstacles should be added in front of the radiator or intercooler.



Front and Back Clearance: 1 inch

Figure 1

Transmission

The transmission is removed from the rear. Enough clearance must be provided to allow for rearward movement of the transmission assembly. At least 2 inches of clearance should be maintained above the automatic transmission to allow for transmission removal. At least 1 inch of clearance should be maintained to the front and rear of the transmission. Clearance should be sufficient to allow 5 to 6 inches of unrestricted movement of the transmission assembly. In addition, provide at least 2 inches of clearance around the control lever on the side of the transmission to allow free movement without any binding.

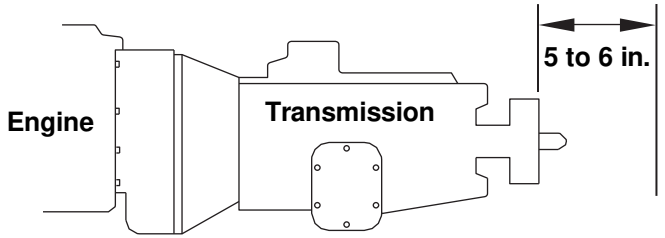


Figure 2

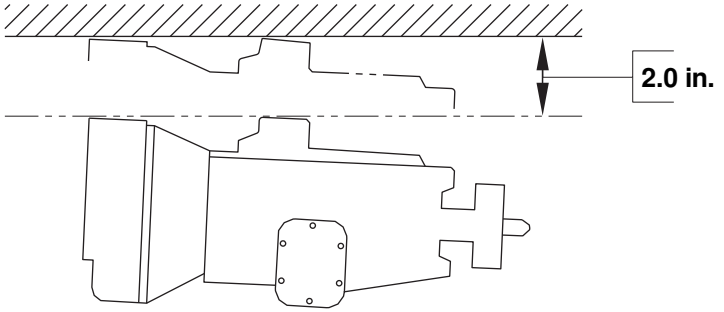


Figure 3

Front and Back Clearance: 1 inch

Front and Center Propeller Shafts

At least 1.25 inches of clearance should be maintained around front and center propeller shafts.

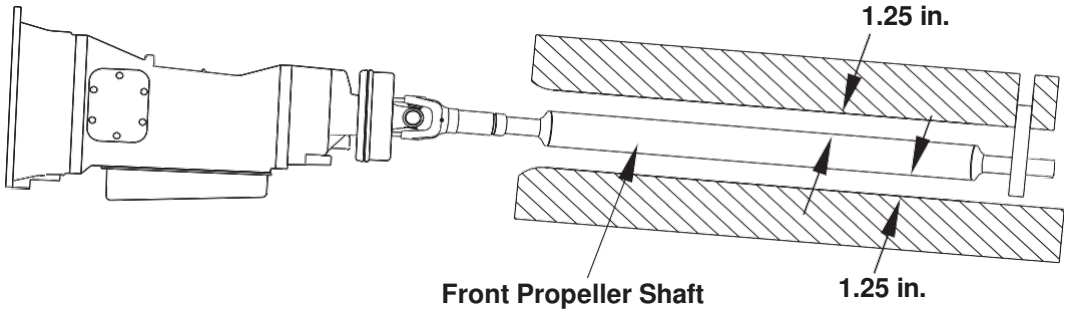


Figure 4

Rear Propeller Shaft

With the rear springs at maximum deflection, at least 1.25 inches of clearance should be provided over the rear propeller shaft.

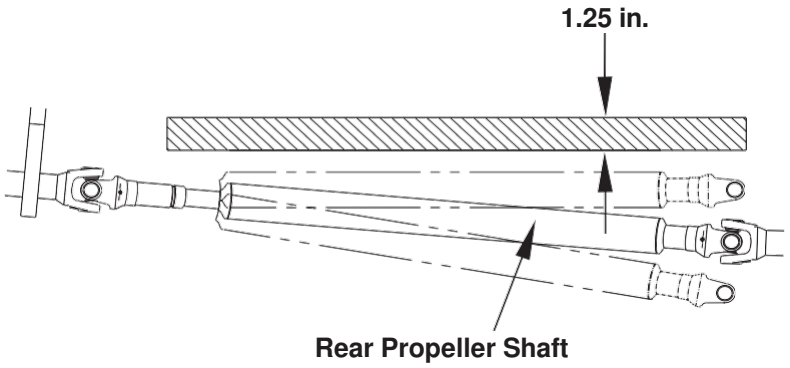


Figure 5

Rear Wheel and Axle

The design and installation of the body should allow sufficient clearance for full vertical movement of the rear wheels and axle when the vehicle travels over rough or unleveled surfaces.

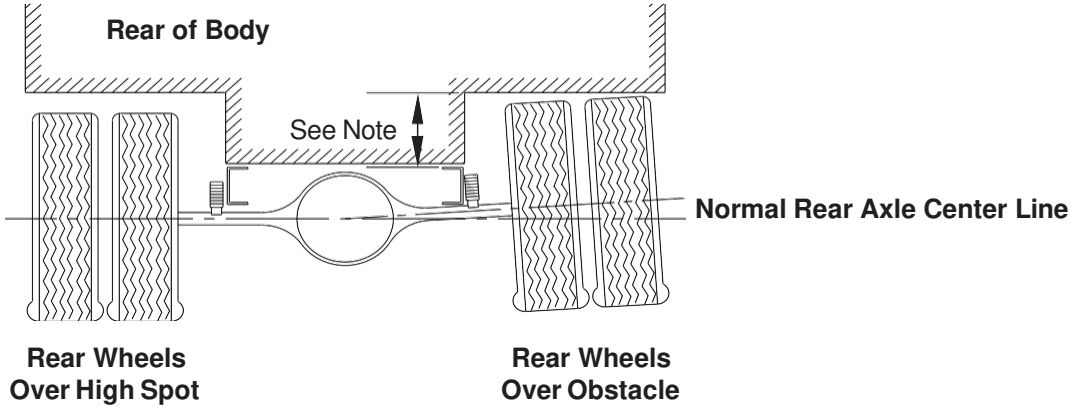


Figure 6

Note: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

Other Clearances

The transmission control cable may be broken if it is bent by or interferes with the body and its fixtures. To prevent this, 1 inch of minimum clearance should be provided. When cable is detached from body mounting, be sure not to bend the cable.

Accessibility to the grease nipple on the rear spring bracket/shackle should be provided so that serviceability with a grease gun is not hampered.

Parts	Location	Minimum Clearance (in)
Brake Hose	Axle Side	6.7
	Frame Side	1.6
Shock Absorber	Axle Side	2.4
	Frame Side	1.2
Parking Brake Cable	-	1.2
Fuel Hose	-	1.6

Figure 7

Exhaust Pipe Clearances

If flammable materials such as wood are used in the body, provide at least 3.9 inches of clearance between the body and any parts of the exhaust pipe, DPF/ SCR Package. If it is impossible to maintain the minimum clearance, use a heat shield. Also use a heat shield if an oil pump or line is located above the exhaust pipe, muffler or catalytic converter.

1. Clearances around SCR system components must be greater than 1.0 inch at all times to avoid potential contact between the body and the exhaust components. The 1.0 inch allows for thermal expansion and assembly tolerance of the exhaust system. It does not account for dynamic movement in the body due to road conditions and other loads. Body companies are instructed to adjust this 1.0 inch clearance as required to account for body displacement while driving. This guidance does not supersede guidance or exhaust clearances for temperature sensitive or flammable components.
2. Exhaust temperatures have not changed since the introduction of DPF in 2007.

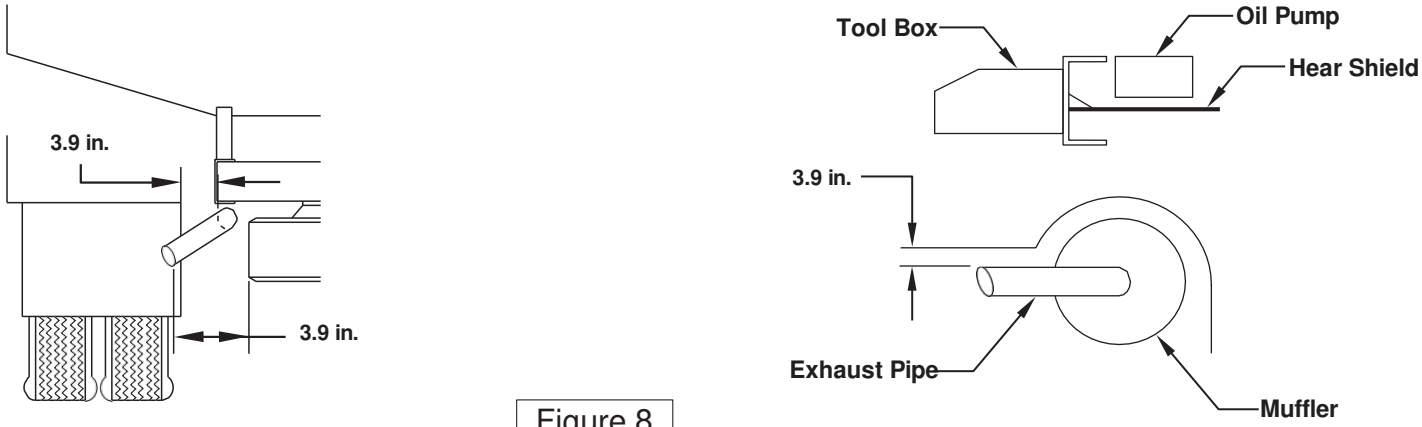


Figure 8

Exhaust Heat Clearances

During the DPF regeneration cycle, exhaust gas temperatures are hot. Therefore, care should be exercised in placement of the pipe's end location and angle. Do not locate any body components or equipment around the exhaust pipe's end area.

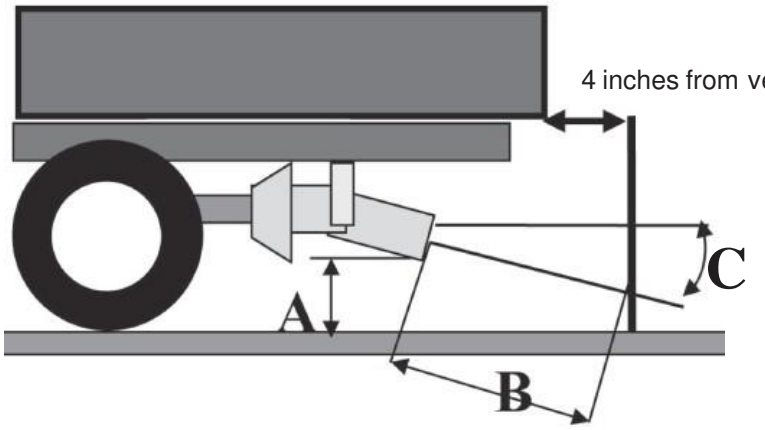


Figure 9

Dimension	Clearance
A	8 in. (minimum)
B	18 in. (minimum)
C	45 deg. (maximum)

Exhaust System

The exhaust system has a crucial role in meeting 2010 EPA regulations. In order to maintain compliance with the 2010 EPA emissions levels the Diesel Particulate Filter (DPF) and SCR package must not be moved. The distance between the engine exhaust manifold down pipe and Diesel Particulate Filter (DPF) / Selective Catalytic Reduction Package (SCR) must be maintained and the pressure in the system must be sustained at a constant level. Due to increased temperatures in the exhaust system during the regeneration cycle and the heat stress caused by these temperatures, body builders should closely evaluate the placement of equipment and provide protection to these added components as needed.

Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) Restrictions

1. The DPF/SCR has exhaust pressure pipes and temperature sensors. Care must be taken when a body is installed so as to not damage pipe sensors.
2. The DPF/SCR should be free from impact or vibration during body installation.
3. The DPF/SCR must have enough room for disassembly of the unit for service and cleaning.
4. The DPF/SCR switch in the cab should not be removed or disabled. No modification or relocation of the DPF/SCR unit, pressure pipes, and sensor is permitted.

Exhaust System Modification

Modification of the exhaust system should be avoided. If modifications are absolutely necessary, the following points should be maintained.

1. Maintain the clearance specified in the table below between all parts of the exhaust system and any fuel lines, brake lines, brake hoses, electrical cables, etc. The exhaust outlet should not point toward any of these parts.

Component	Clearance Dimension
Brake Lines	2.4 in. or more. If the combined section of a group of parallel brake lines is more than 7.8 in., a clearance of 7 in. or more should be provided.
Flexible Brake Hoses	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Wiring Harnesses and Cables	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Steel Fuel Lines	3.1 in. or more.
Rubber or Vinyl Fuel Hoses	5.9 in. or more.

Figure 10

2. If a toolbox is installed, it should preferably be made from steel. If a wooden toolbox is installed, at least 7.8 inches of clearance should be maintained between the toolbox and any parts of the exhaust system.
3. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the noise level meets appropriate standards.
4. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the emission levels meet appropriate standards.
5. Exhaust system component temperatures are sufficient to ignite flammable materials; efforts should be made to prevent flammable materials from interacting with the exhaust system.

6500 & 7500 No Modification Zones

The DPF/SCR unit **CANNOT** be modified or moved. The DEF tank and pump **CANNOT** be modified or removed. DEF lines and coolant lines **CANNOT** be modified or rerouted.

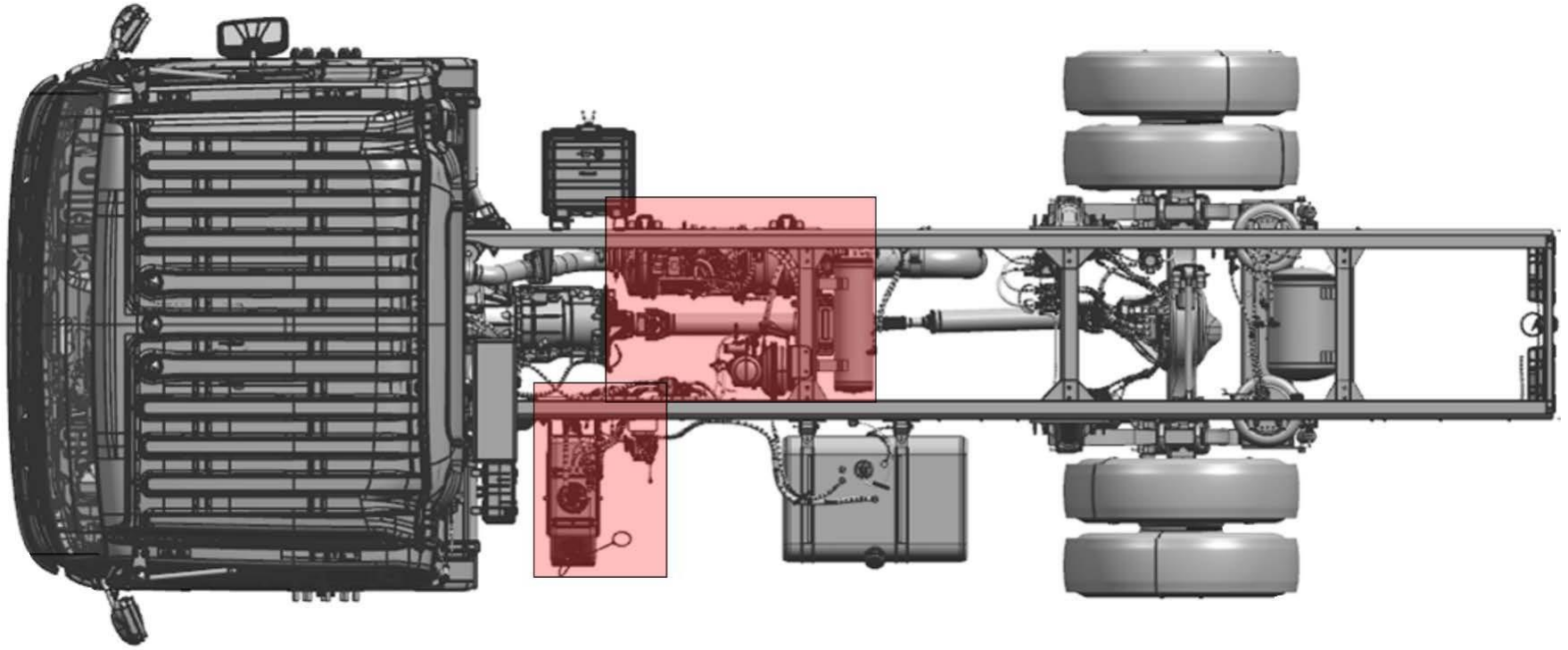


Figure 11

Body Installation

Mirrors

The Chevrolet LCF chassis will accommodate up to 96 inch wide bodies without modification to the mirror brackets. Bodies wider than 96 inches and up to 102 inches wide will require modified mirror brackets. This Modification can be made at the port and the vehicle order label will indicate a Regular Product Option (RPO) of I4Q, I5Q, or I6Q indicating 102" wide compatible mirrors are installed.

Special Equipment on the Chassis

When installing special equipment on the chassis, extra consideration must be given to the weight and construction of the equipment to assure proper distribution of the load. Localization of the load should be prevented. All special equipment should be properly secured into position. We recommend the use of subframe members when installing special equipment.

Subframe Design and Mounting

The sub frame assembly should be mounted as close to the cab as possible. It should be contoured to match the shape and dimensions of the chassis frame as closely as possible. See model specification sections for frame and crossmember layout.

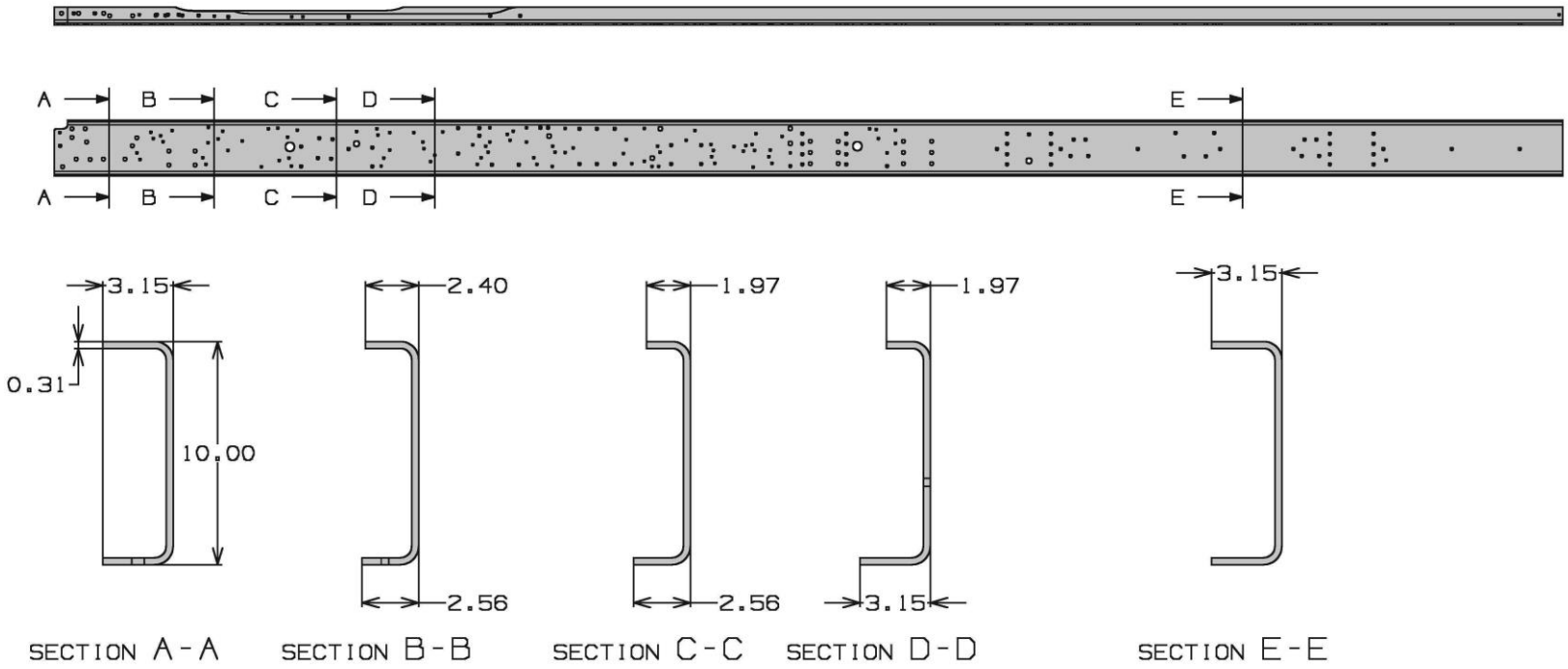
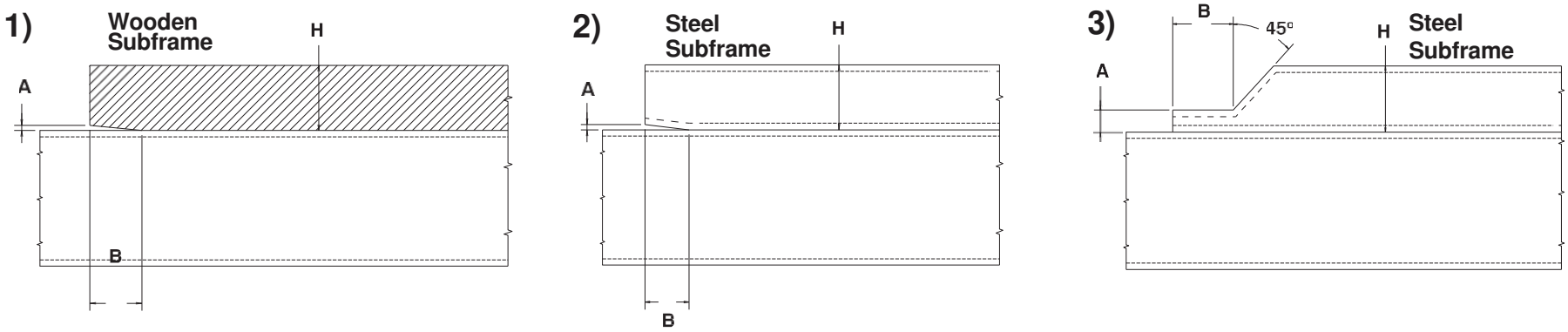


Figure 12

Subframe Contour

Contouring of the front end of the subframe members as shown in the three illustrations below will prevent stresses from being concentrated on certain areas of the chassis frame.



Drawing	A	B
1)	0.2 in.	$\frac{H}{2} \cong H$
2)	0.2 in.	H or greater
3)	$\frac{H}{3}$	H or greater

Figure 13

When using a steel subframe, do not close off the end of the subframe.

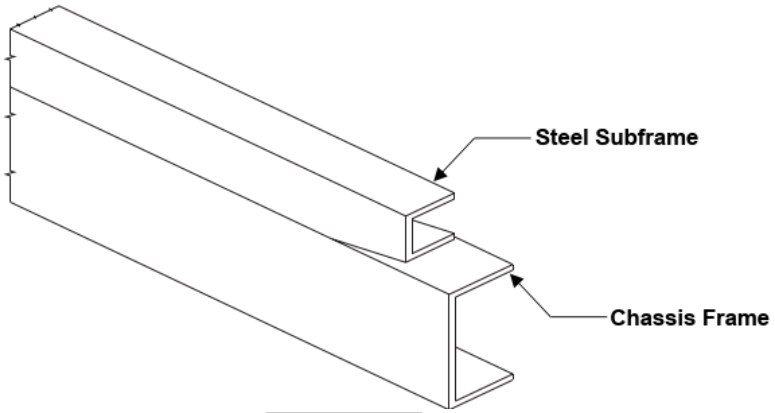


Figure 14

Prohibited Attachment Areas

Do not attach the subframe to the chassis frame with a bolt or bracket at the points indicated in the following illustrations.

1. At the front end of the subframe. The attaching bolt or bracket must be at least 2 inches behind the kick up point of the subframe (Figure 15).
2. Within 8 inches of bends in the chassis frame or the attachment points of any crossmembers (Figure 16).

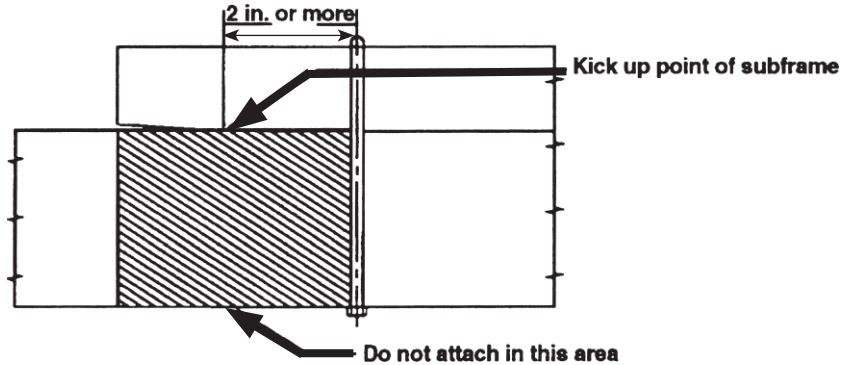


Figure 15

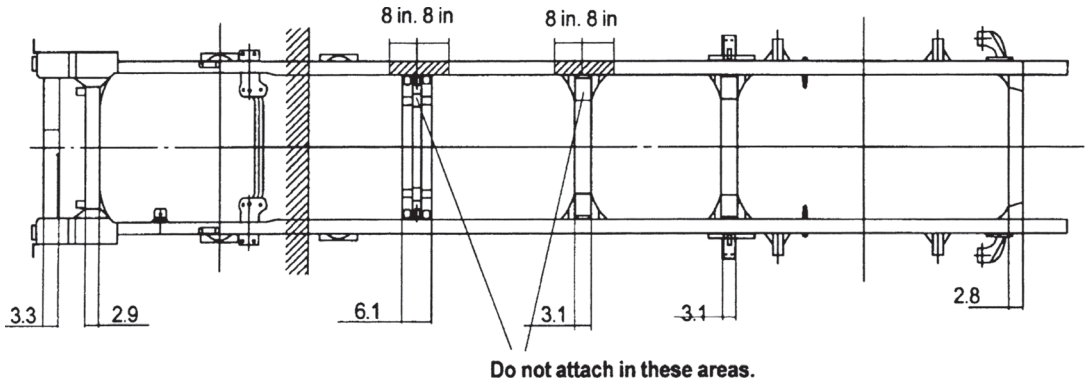


Figure 16

Subframe Mounting - Bracket Installation

Mounting brackets should be clamped to the chassis frame using bolts. For proper positions in which to install the bolts, refer to the preceding section and the section “Modifications to the Chassis Frame.” In addition to the illustrated bracket and U-bolts a shear plate may be required for adequately body mounting. The body company will be responsible for engineering their own mounting system.

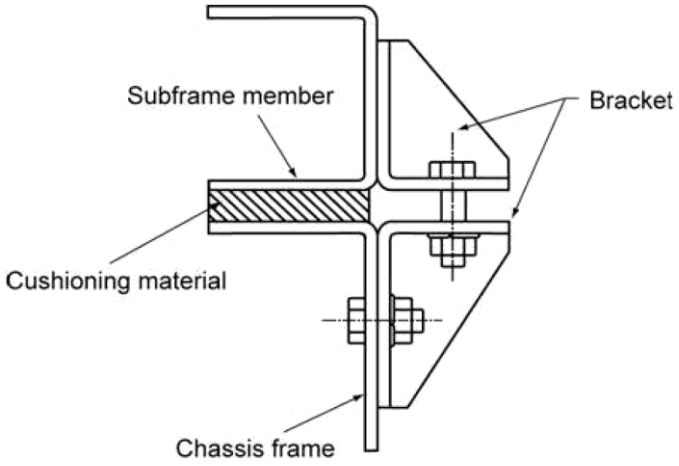
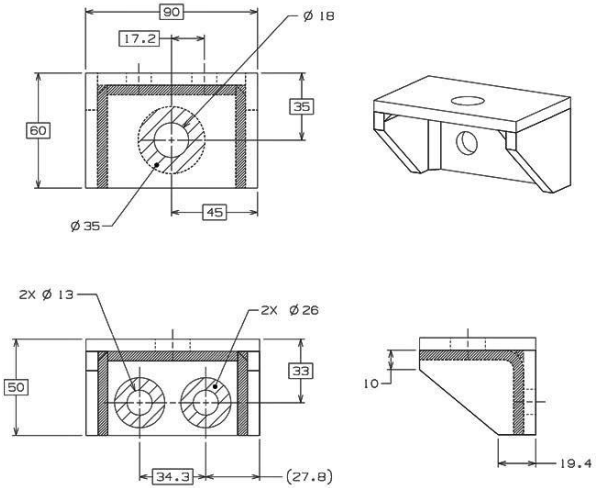


Figure 17



Note: (3) Body mounting brackets are bolted to the frame from the factory, and they will be painted “YELLOW” of easy identification

U-bolt Installation

When U-bolts are used to retain the subframe, reinforcement blocks must be installed in the frame members. This will prevent distortion of the frame flange as they are tightened. The drawing indicates the correct placement of reinforcement blocks. If you use wood blocks, be sure that there is sufficient clearance between them and any parts of the exhaust system. If any fluid lines or electric cables are located near the reinforcement blocks, you must provide at least 0.4 inches of clearance between rigid or stationary portions, and at least 1.6 inches between movable or flexible portions of the lines.

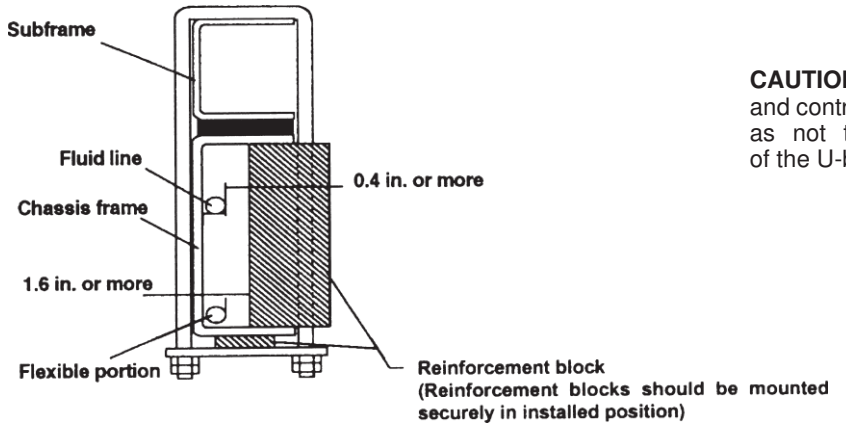


Figure 18

CAUTION: U-Bolt placement is critical with new emission systems and controls. Extra care must be taken when placing bodies on chassis so as not to damage these components. For the installation positions of the U-bolts, refer to “Prohibited Attachment Areas.”

Front Body Mounting Brackets and Crush Block Mounting Locations

Due to the location of the after treatment device and other interior frame components, if body mounting is required in the area directly behind the cab, the supplied body mounting blocks provided on the chassis should be used. The chassis will be supplied with two (2) body mounting blocks (painted yellow) attached to the frame in the locations shown in the figure below. Body Builders will be required to design a mating bracket for attaching the body to the yellow painted chassis body mounting brackets. No U-bolt type attaching is allowed in these locations.

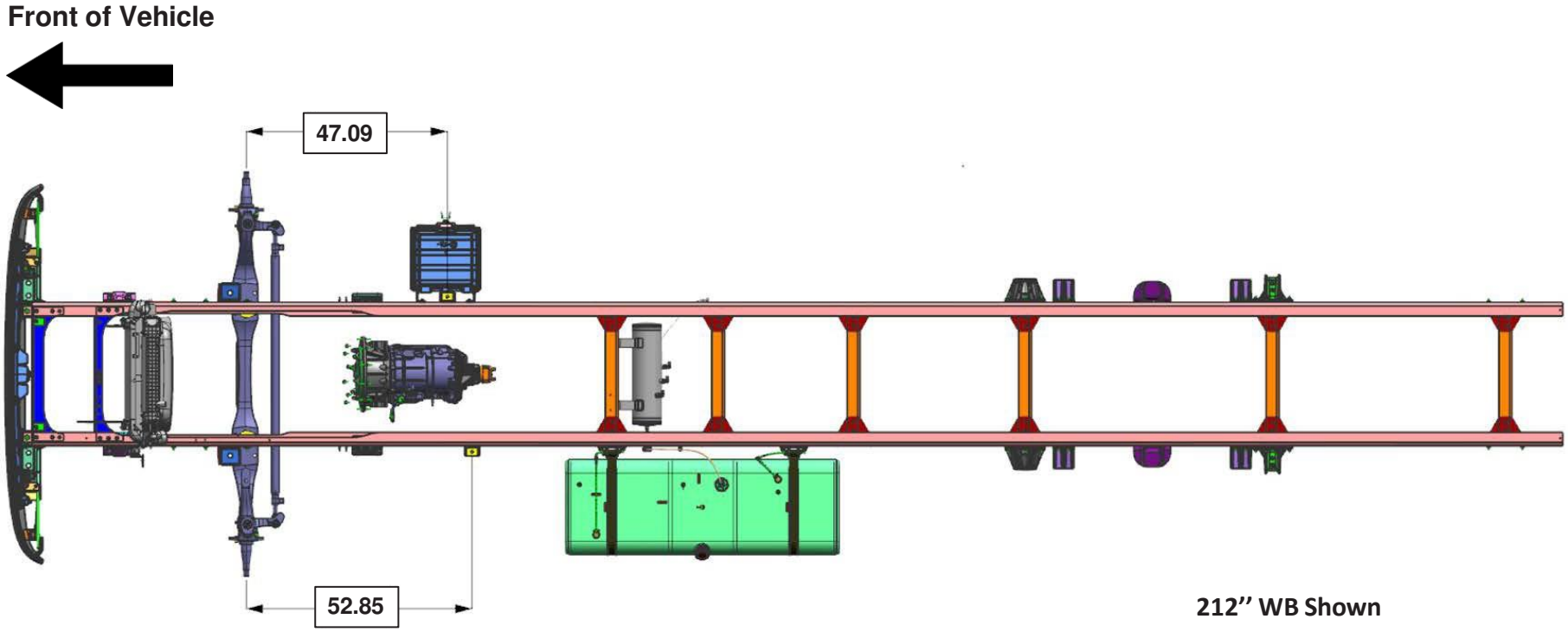


Figure 19

Modification of the Frame

Modifications of the chassis frame should be held to an absolute minimum. Modification work should be performed according to the instructions in the following paragraphs.

When modification is complete, chassis frame members should be carefully inspected to eliminate the possibility of any safety-related defects.

NOTE: PLEASE REFER TO NOTES ON CHASSIS FRAME MODIFICATION WITH ANTILOCK BRAKES.

Working on Chassis frame

The chassis frame is designed and built with consideration for proper load distribution. Sufficient physical strength is provided when the load is evenly distributed. Installation of special equipment on the chassis frame can cause variations in load distribution. If even distribution of load is not kept in mind when the equipment is installed, localization of stresses on specific areas of the frame could cause cracking of the chassis frame members or other problems, even if the total weight of the equipment is within the design limit.

The chassis frame is designed as an integral unit. Therefore, we do not recommend cutting the chassis frame under any circumstances.

Drilling and Welding

IMPORTANT NOTE: For vehicles equipped with electronic engines and or electronic or hydra-matic transmissions, electric arc welding must be done with the negative battery cable disconnected.

1. Do not drill or weld in the shaded portions of the chassis frame members (see below). Do not weld within 0.8 inches from the edges of any existing holes.
2. Hold the length of any welding beads within 1.2-2.0 inches. Allow at least 1.57 inches between adjacent welding beads.
3. All holes must be drilled. Do not use a torch to make any holes.
4. All riveting must be done with cold rivets. Do not use hot rivets.
5. The flange of the chassis frame must not be cut under any circumstances.
6. The subframe must be attached to the chassis frame with bolts. Do not weld.
7. Repaint exposed metal after drilling.

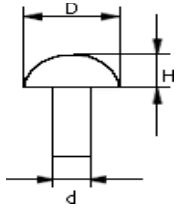
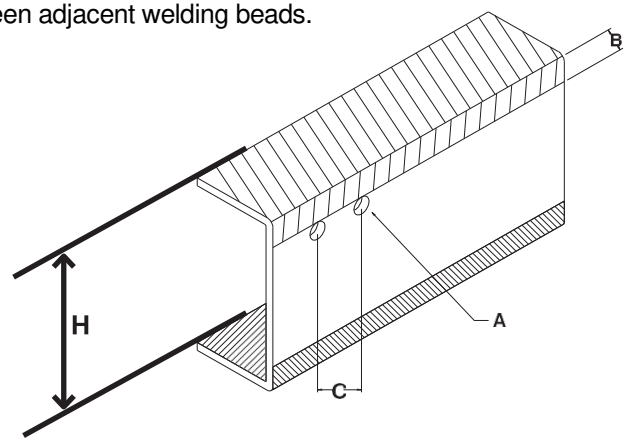


Figure 20

Rivet size detail:

D - 18mm (medium duty truck) / 21mm (heavy duty truck)
d - 11mm (medium duty truck) / 13mm (heavy duty truck)
H - 7.7mm (medium duty truck) / 11mm (heavy duty truck)



Dimensio

Figure 21

A - no more than 0.59 inches in diameter
B - must be more than H/5 for welding and H/7 for holes
C - must be more than 1.57 inches
H = Frame Height

Reinforcement of Chassis Frame

Reinforcements must be installed to prevent the considerable variation in the section modulus. They must be welded so as to avoid localized stresses. The drawing below illustrates the correct and incorrect methods of frame reinforcement.

Welding

Keep reinforcement plates and chassis frame free from moisture and water. Avoid cooling with water after welding. Use a suitable means to protect pipes, wires, rubber parts, leaf springs, etc. against heat and effect of sputtering. Remove fuel tank assembly when welding portions near the fuel tank. Remove coat of paint completely when welding painted areas. Repaint exposed metal after welding.

When installing reinforcement by riveting or plug welding, place plugs or rivets in a zigzag pattern. When performing plug welding, be sure that electrical components, such as electric harnesses on the inner side of a chassis frame side member, are a minimum of 50mm apart from welding site. When inserting a rivet in a hole from which another rivet has previously been removed, the rivet should be 1 or 2mm larger in diameter than the removed one. Cold rivet only.

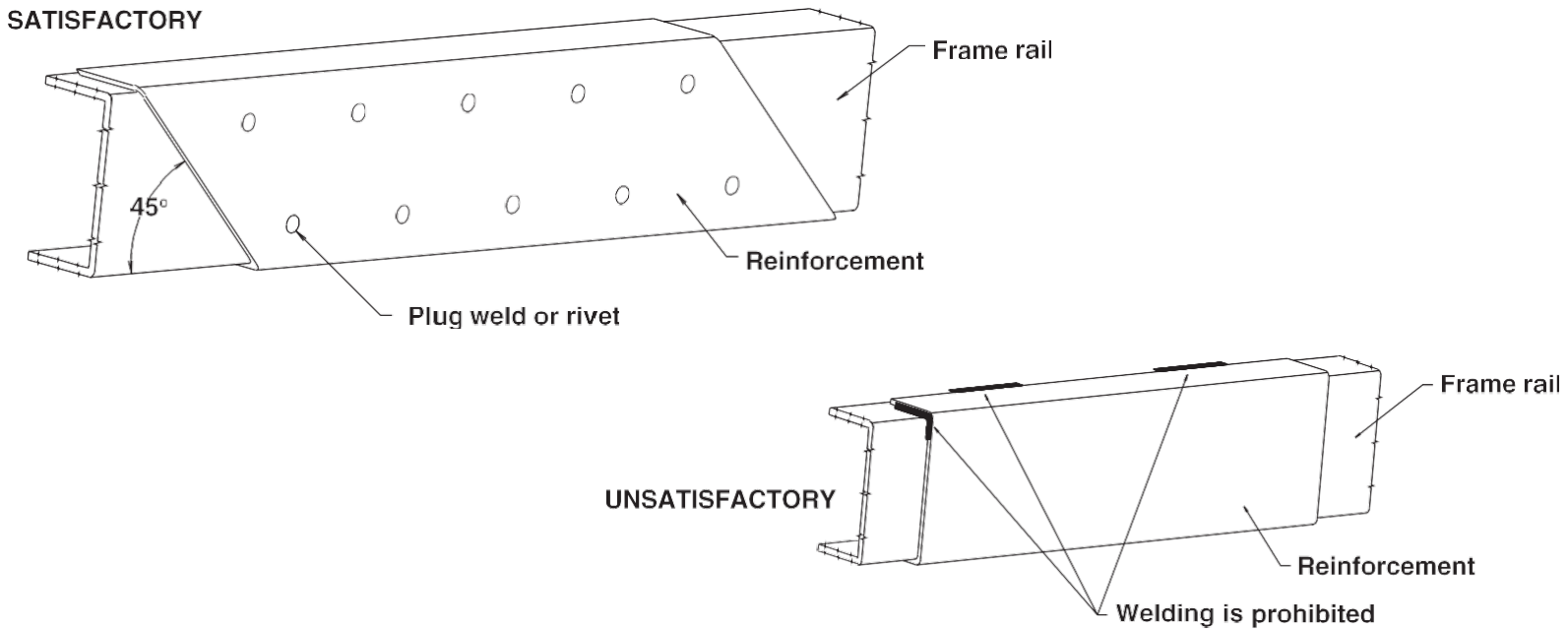


Figure 22

Crossmember Modification

Alligator type cross member - For alligator type, hole drilling, notch making, and welding are prohibited.

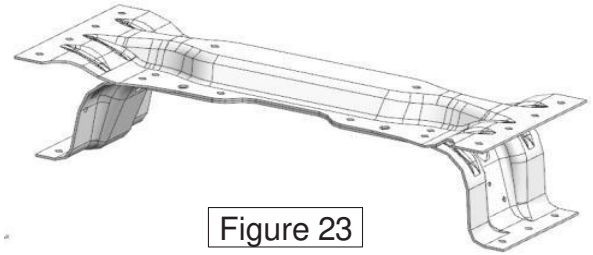


Figure 23

Channel type cross member: a – Allowable maximum hole diameter is 9mm, and this hole should be used only for piping or harness routing.
b – Prohibited area, no drilling should be done in this area.
c – See Figure 24 for minimum required distance.

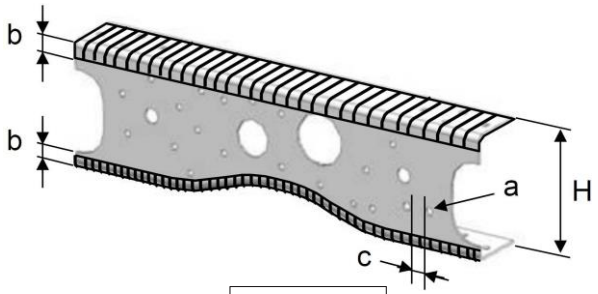
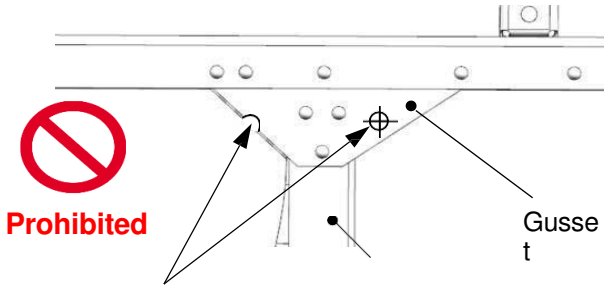


Figure 24

Gusset: Hole drilling and notch making are prohibited.



Cutting or machining strictly prohibited

Figure 25

Rear Overhang Modification

If a body protrudes outward from the rear end of the chassis frame by 300 mm (11.8 in.) or more, lengthen the rear overhang of the chassis frame as indicated below. If it is necessary to cut the chassis frame, ensure that the cut location does not split existing holes.

1. Extension material
    - The extension material should be equivalent to that of side members. Refer to specification information for the vehicle model in consideration.
    - Thickness and bending radius of the extension material should be the same as that of side members. Refer to specification information for the vehicle model in consideration.

2. Installing extension material
    - **Extension material is 300mm or shorter:** Join extension material and chassis frame with a continuous butt weld around the entire circumference. After welding, grind finish weld surface.

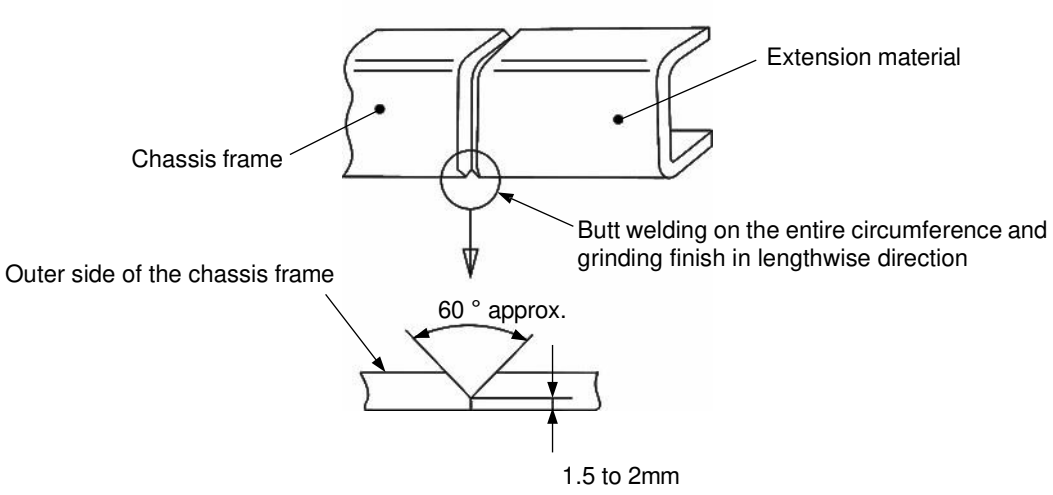
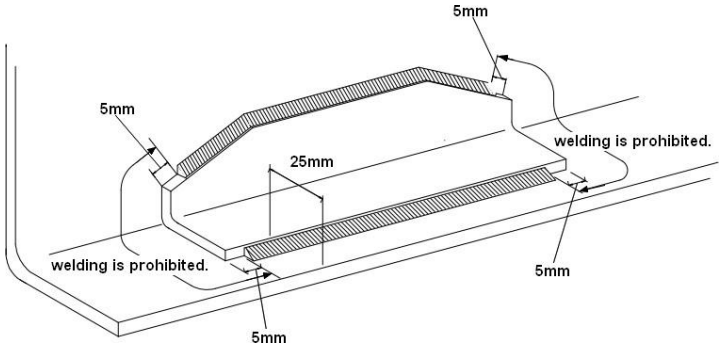

Extension material
Chassis frame
Butt welding on the entire circumference and grinding finish in lengthwise direction
Outer side of the chassis frame
60 ° approx.
1.5 to 2mm

Figure 26

- **Extension material is longer than 300mm:** Join extension material and chassis frame with a continuous butt weld around the entire circumference, and then fit a reinforcement on the inner side of the chassis frame and extension material.



Side member thickness [mm]	Reinforcement material thickness (recommendation value) [mm]
8.0 at minimum	7.0
7.5	5.5 to 7.0
7.0	4.5 to 6.0
4.0 to 6.0	4.5

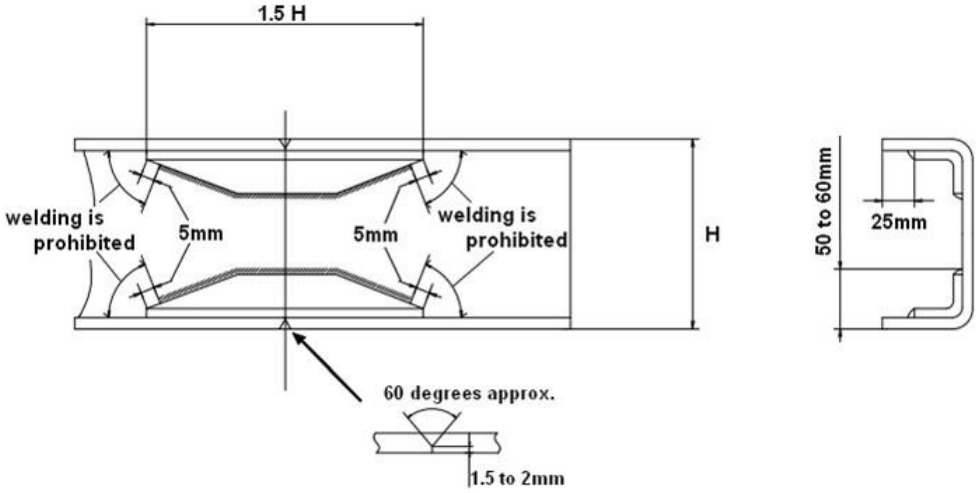


Figure 27

Fluid Lines

Do not disturb the layout of any brake lines or fuel lines unless absolutely necessary. When modification is needed, follow the instructions below carefully to ensure safety. Brake fluid lines must not be cut and spliced under any circumstances. We do not recommend the cutting or splicing of any fuel lines, but if it is absolutely necessary, be sure that the correct fitting and tools are used to form the joint, and then pressure test the joint. Steel lines are metric sizes.

Preparation of Additional Lines

1. Where possible, use only genuine GM lines as supplied by authorized GM dealers.
2. Use the correct metric flaring and bending tools to form the lines.
3. Avoid repeated bending. Do not use heat for flaring and bending the lines. Before and after forming the new lines, examine them carefully for scratches, distortion, dents, and the presence of any foreign matter.

Installation of Additional Lines

Install new lines away from adjacent parts and away from any sources of heat.

1. A minimum clearance of 0.4 inches must be maintained between lines. Where necessary, clip the lines into position in order to maintain this minimum clearance.
2. Minimize any crossing between lines. If a crossing is unavoidable, use the following procedure:
    a. At least 0.4 inches of clearance should be maintained between lines at the crossing point.
    b. If the 0.4 inches of clearance cannot be maintained, or if the lines are subject to vibration, clip them securely.
3. Plan the bends and clipping points of the lines to minimize vibration and the resulting fatigue.
4. Use rust-proofed clips and apply vinyl coating to the portions of the lines to be clipped.
5. Install new lines in positions where they are protected against water, dirt, grit, sand, rocks and other foreign matter that can come from above or below or can be flung up by the wheels.

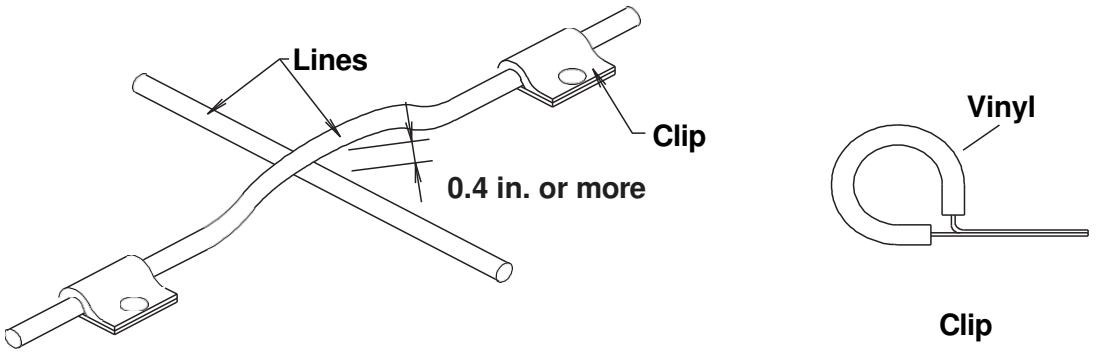


Figure 28

Electrical Wiring and Harnessing

To increase the reliability of the wiring, all frame harnesses are covered with corrugated vinyl tubing. The following instructions apply to extending or modifying these harnesses. See the Electrical Section for information on commonly used circuits in the F-Series Chassis.

Wiring

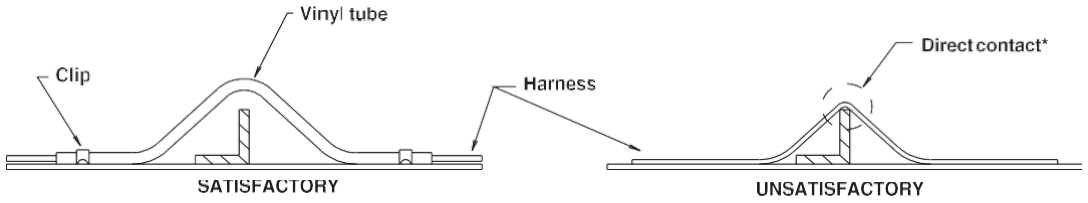
1. Most wiring connections on GM vehicles are made with terminals. We recommend the use of terminals when splicing cables and wires.
2. When splicing, use new wire of the same gauge, and do not make splices inside the corrugated tubing.
3. When making connections to the end of the harness, make sure the connections are electrically perfect. Use insulating tape as needed to prevent the entry of water, which results in short circuits and/or corrosion.
4. When making new circuits, or modifying circuits already installed, make the cables only just taut enough to remove any slack. Use clips or grommets where required to protect cables from heat or sharp edges. When cables must run near the exhaust system, see the instructions in the “Exhaust System” section.
5. Always use rustproof clips and apply vinyl coating to that portion of the clips in direct contact with the harnesses. No scotch clips or connectors.
6. To minimize the vibration of the harness, clipping points should be set up according to the table below.
7. When changing the length of the battery cable, do not cut or splice the existing cable. Make up a new cable of the correct length and wire gauge for the load and distance, without splices.
8. When using connectors, use a socket (female) connector on the electrical source side and a plug (male) connector on the electrical load side to lower the possibility of a short circuit when disconnected.
9. When connecting cables to moving or vibrating parts such as the engine or transmission, be sure to maintain sufficient slack in the wiring to absorb the vibration. Follow the example of existing cables connected by GM. Keep flexible cables clear of other parts.
10. Do not use vinyl tape in the engine compartment. The heat will tend to make it peel off. Use plated steel clips coated with rubber or vinyl.
11. When locating auxiliary equipment or lines near the ECM caution should be used in order to protect the ECM from excessive vibration, heat or chemical reactions.

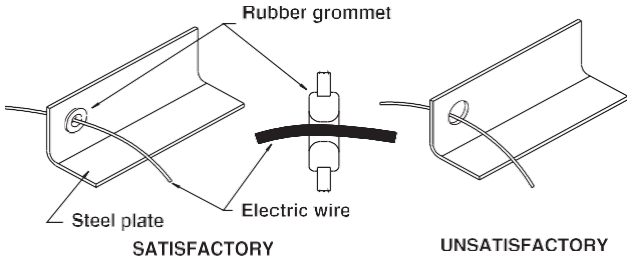
Wiring Harness Clip Distances

Harness Diameter	Clip Distance
less than 0.2 in.	less than 11.8 in.
0.2 in. ~ 0.4 in.	approx. 15.7 in.
0.4 in. ~ 0.8 in.	approx. 19.7 in.

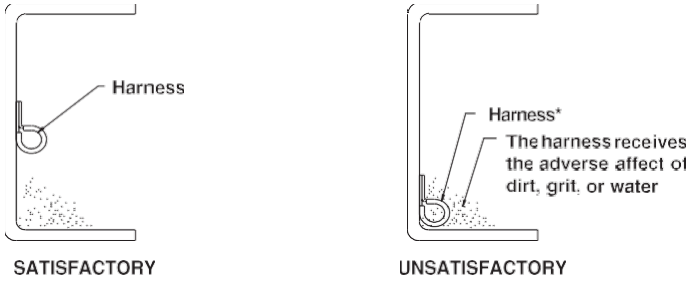
Figure 29

Wiring Harness Detail





* Cables should not be in contact with sharp edges or piercec holes.



* Harnesses should not be installed on inside lower face of the chassis frame.

* Harnesses should not be taped to fuel lines or other lines. A sufficient clearance should be maintained betweer harness and pipe lines.

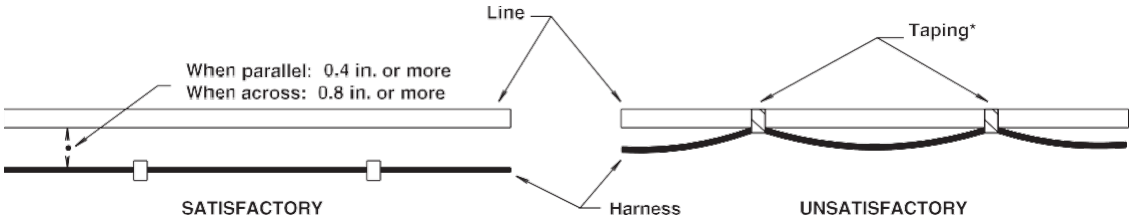


Figure 30

Wire Color Code

The electrical circuits of the LCF Chassis Cab are connected with low-voltage stranded wire for automotive applications. The color-coding standards are as follows for the LCF Chassis Cab:

(1)	Black	B	Starter circuits and grounds	(5)	Yellow	Y	Instrument circuit
(2)	White	W	Generator (alternator) circuit	(6)	Brown	Br	Accessory circuit
(3)	Red	R	Lighting circuit	(7)	Light Green	Lg	Other circuit
(4)	Green	G	Signal circuit	(8)	Blue	L	Windshield wiper motor circuit

Maximum Allowable Current by Wire Size

Harness Design Diameter (mm)	AWG Equivalent	No. of Wires/Wire Diameter (mm)	Cross Sectional Area (mm2)	Maximum Allowable Current (Amps)
100	00	217/0.80	109.1	363
85	0	169/0.80	84.96	305
60	1	127/0.80	63.84	248
50	1	108/0.80	54.29	223
40	1	85/0.80	42.73	191
30	2	70/0.80	35.19	171
20	4	41/0.80	20.61	123
15	6	84/0.45	13.36	93
8	8	50/0.45	7.952	68
5	8	65/0.32	5.228	51
3	12	41/0.32	3.297	39
2	14	26/0.32	2.091	29
1.25	16	16/0.32	1.287	21
0.85	18	11/0.32	0.8846	17
0.5	20	7/0.32	0.5629	13

Reference: The values given in the “maximum allowable current” column are based on the ambient temperature condition of 104°F with temperature increase of 104°F.

Figure 31

Electrical System Modifications

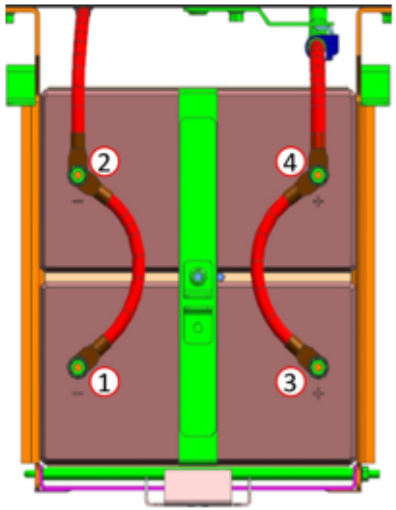
Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc. Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance. Any add-on wiring needs to be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat. Care must be exercised that existing vehicle interfaces do not have their current load capabilities exceeded, and that the respective control devices are not overloaded. Added wire size should be at least as large as the wire to which it is attaching in order for fuse protection to be maintained.

A Packard electric wiring repair kit is available through Kent-Moore (P/N J38125-B) (Phone # 1-800-345-2233). This kit contains instructions, tools, and components for making repairs to wiring harness components. This kit would also greatly assist in accomplishing necessary add-on wiring such as body marker lamps, so that system reliability/durability is maintained.

Electrical wiring components can be obtained through your authorized GM dealers. Packard Electric components are also available through Power and Signal (www.powerandsignal.com). Power and Signal may also be able to assist in making necessary wiring additions by providing custom wiring stubs or jumpers to your specifications.

CAUTION: Before servicing any electrical component, the ignition key must be in the LOCK position and all electrical loads must be OFF, unless instructed otherwise in GM service procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Do not disconnect cable within 3 minutes after turning the ignition key to the Lock position. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

Battery Terminal Tightening Torque



No.	NUT SIZE	TORQUE
① ~ ④	3/8-16 (inch)	15±2 (N·m)

Figure 32

Fuel System

Relocation of the fuel tank, or installation of additional fuel tanks, is not recommended. If modifications to the fuel system are unavoidable, follow these recommendations:

1. Maintain adequate clearance between the fuel tank and any other device or structure.
2. Do not connect any additional fuel hose.

Rear Lighting

Brackets installed are temporary. Please do not use these brackets for body installation.

Serviceability

No matter what other modifications or changes are made, access to components requiring daily preventive maintenance or other routine service must not be obstructed. This includes the following items:

1. Inspection, filling and draining of engine oil and cooling water.
2. Inspection, filling and draining of transmission fluid.
3. Adjustment, removal and installation of the fan belts.
4. Inspection, filling and removal of the battery and battery cover.
5. Inspection and filling of brake fluid.
6. Inspection and bleeding of the brake system and servo unit.
7. Maintenance of clearance for tightening of check bolt on brake safety cylinder.
8. Operation of the spare tire carrier, including mounting and dismounting of the spare tire.
9. Adjustment, removal and installation of distributor and/or cover.

Wheelbase Alteration

With certain applications, it may become necessary to alter the wheelbase of the chassis. The following pages provide the suggested guidelines for accomplishing either shortening or lengthening of the wheelbase.

Shortening/Lengthening the Wheelbase Without Altering the Frame

Since the frame is an integral part of the chassis, it is recommended for the frame not be cut if it is avoidable. When shortening or lengthening the wheelbase on some models, it is possible to do so without cutting the frame. This is possible on models which have a straight frame rail. If the chassis does not have a straight frame rail, it may still be necessary to cut the frame. For instructions on shortening or lengthening these chassis, refer to the "Altering the Wheelbase by Altering the Frame" section of this book. Otherwise, the wheelbase may be shortened or lengthened by removing the rear suspension, drilling new suspension mounting holes at the appropriate spot in the frame, and sliding the rear suspension, suspension liner, and suspension crossmembers forward or aft.

The suspension and suspension crossmembers' rivet holes left in the frame rail flange must be filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut. When shortening/lengthening the wheelbase in this manner, the following guidelines must be adhered to:

1. All frame drilling must comply with the DRILLING AND WELDING section of this book.
2. All rivet holes left in the frame rail flange from the suspension and suspension crossmembers must be either filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut.
3. The components required to be slid forward or aft are the suspension and suspension hangers, suspension crossmembers and suspension frame liner.

Altering the Wheelbase by Altering the Frame

Even on a straight frame rail, it may be desirable to cut the frame and lengthen or shorten the wheelbase rather than simply sliding the rear suspension back or forward. The following section offers some guidelines and suggestions for cutting and lengthening or shortening the frame.

Glossary of Terms – Chassis Wheelbase Alteration

CA – Length from back-of-cab to rear axle centerline in inches.
AL – Added length (in case of a lengthened wheelbase). Difference between WB (new) and WB (old).
SL – Shortened length (in case of shortened wheelbase). Difference between WB (old) and WB (new).

1. Determine the added length (AL) or shortened length (SL) required to lengthen or shorten chassis. (For added wheelbase: New CA = CA + AL; For shortened wheelbase: New CA = CA – SL.)

2. Obtain the material to be used as the insert for the lengthened wheelbase in the correct length (AL). The insert must have the same cross-sectional dimensions and yield strength as the original frame rail.

3. Divide the new CA by two (2). Measure new CA/2 from the center of the rear axle forward and mark this point on the chassis frame (see figure below).

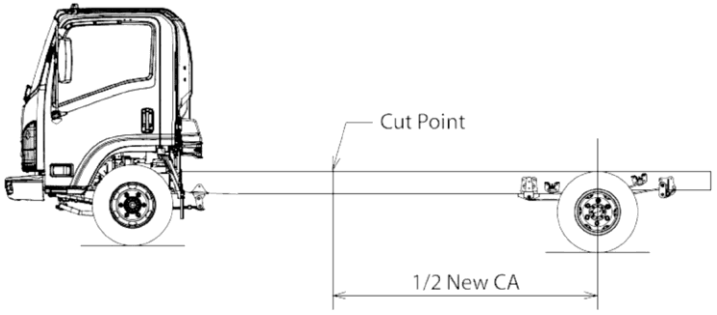


Figure 34

4. Cut the chassis frame at this point. If the wheelbase is to be lengthened, addition of the previously obtained insert (of length AL determined in step 1) will be made at this time. If the wheelbase is to be shortened, measure the distance (SL) forward of this cut and remove a length (SL) section from the chassis frame (see figure below). Ensure that an adequate area on the frame remains for the required addition of the necessary reinforcements. These are the only suggested places for cutting the frame and reinforcements but may be changed upon the advice of GM Upfitter engineering.

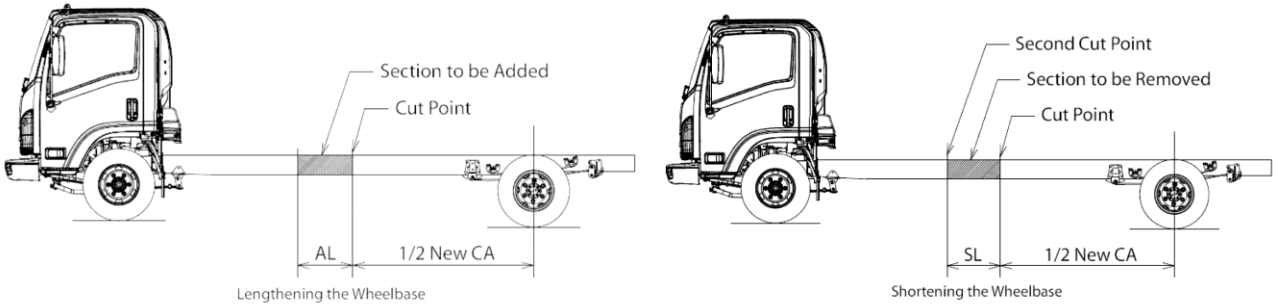


Figure 35

5. When welding the insert (length AL for wheelbase lengthening) to the original frame rail, a continuous butt weld must be used at the splices. When shortening the wheelbase, weld the ends of the chassis frame together with a continuous butt weld over the junction of the frame ends. Weld can be both the inside and outside of the frame rails using welding techniques prescribed by established welding standards (ref. SAE J1147) and in accordance with this manual. An example of this weld is shown below.

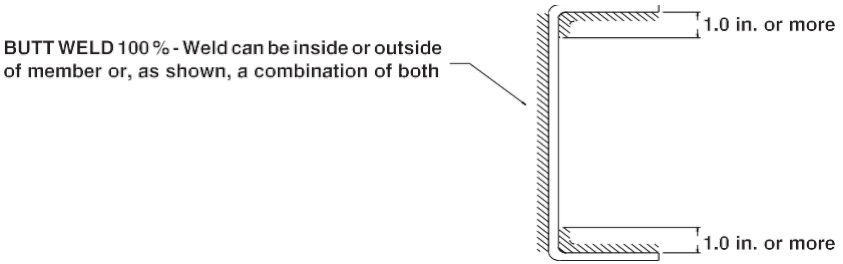


Figure 36

Installation position of reinforcement material

・Ends of outer reinforcement and inner reinforcement should not overlap.
・An end of outer reinforcement and cross member should not overlap.
・An end of outer reinforcement and spring bracket should not overlap.

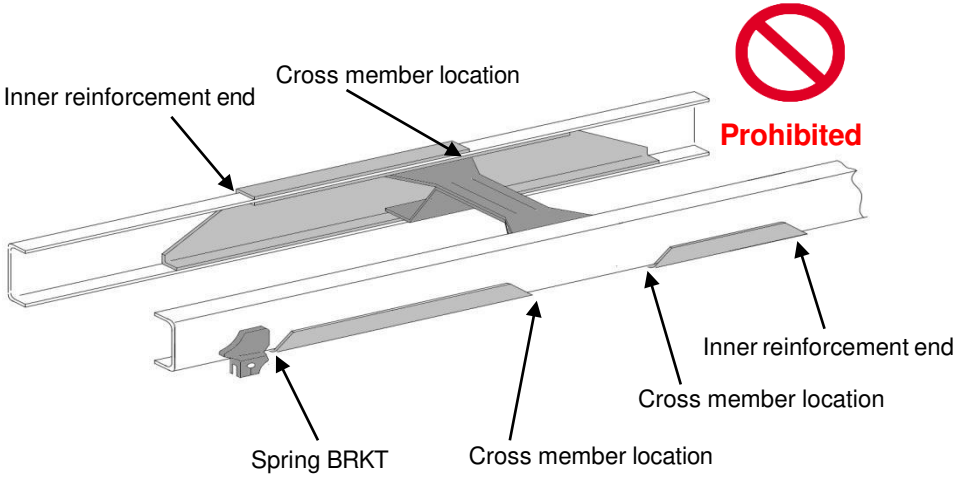
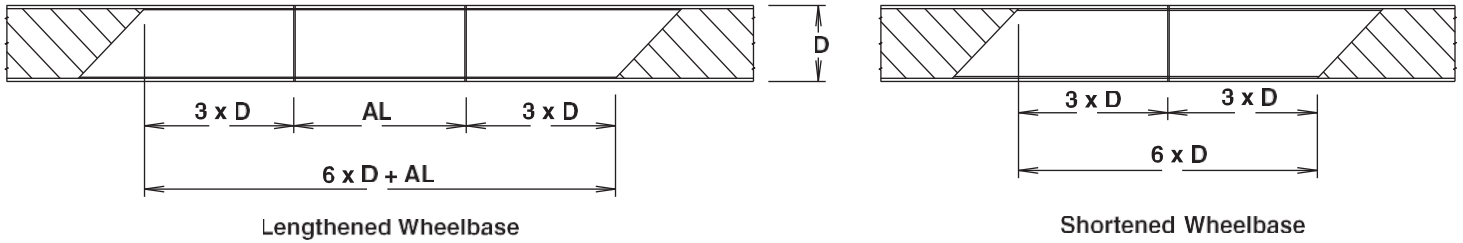


Figure 37

6. Determine the appropriate additional internal reinforcements which are required using this equation:

Reinforcement Length = AL + 6 x (original frame rail web depth).

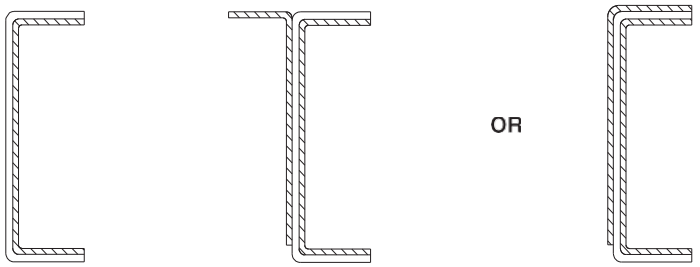
The figure below shows how this reinforcement is to be placed over the extended or shortened section of the frame rail.



D = Original frame rail web depth

Figure 38

The suggested cross section of this reinforcement is a snug fit inner channel. If the new wheelbase exceeds the upper limit of the optional wheelbases of this model, i.e.; a “long bridge”, it may be necessary to use an “inverted L” reinforcement in addition to the snug fit channel reinforcement. Application Engineering should be consulted for approval of such cases. It should be noted that these methods of reinforcements, and any other methods which may be used, require a 45° angled cut at both ends to avoid stress concentrations in the frame (note the figures under item 7).



D D D channel Snug fit inner channel with "Inverted L" for "Long Bridge" wheelbases

Figure 39

7. The reinforcements must be fastened securely to only the web of the original chassis frame rail. The reinforcement must be held rigidly in place using either HUC bolts, GRADE 8 bolts and hardened steel washers at both the bolt head and nut, or GRADE 8 flanged bolts and hardened steel washers at the nut. Below are some suggested bolt patterns. It should be noted that these bolt patterns must not align the bolts vertically, i.e.: the bolt pattern must be staggered.

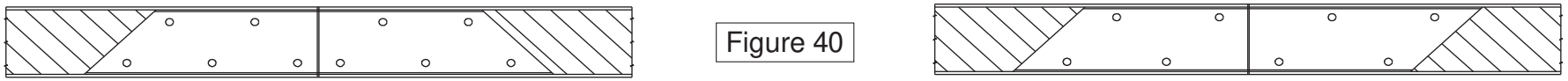


Figure 40

9. The propeller shafts' overall length will also need to be lengthened or shortened. If the extension is within the limits of the optional wheelbases of the respective model, the exact propeller shaft lengths and angles are given on or about Page 12 of the respective sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
   a) Propeller Shaft Length - the maximum propeller shaft lengths (pin to pin) for the respective models are shown in the table below.

ENGINE	DIESEL
Model	6500/7500
Propeller Shaft Diameter (in.)	4.0
Maximum Propeller Shaft Length (in.)	67.9

Figure 41

   b) Propeller Shaft Angles - the maximum propeller shaft angles, with respect to the previous shaft, are shown in the table below.
   c) The propeller shaft angles must be designed such that the angles will cancel to avoid propeller shaft whip.
   d) The propeller shaft yokes must be assembled such that the propeller shaft yokes are "in phase."

ENGINE	DIESEL
Model	6500/7500
Maximum Propeller Shaft Angle	3.4°

Figure 42

10. Extending the frame will also require relocation and/or addition of crossmembers. If the extension is within the limits of the optional wheelbases of the respective model, the exact crossmember locations and dimensions are given in the respective model sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
   a) The crossmember location will largely be determined by the propeller shaft lengths and where the center carrier bearing locations are for the propeller shaft assembly.
   b) A crossmember must be located at the front and rear spring hangers of the rear suspension (refer to the appropriate section of this book to see where these suspension crossmembers are to be located).

c) The crossmember must be constructed such that it supports both the upper and lower flange on each frame rail (see drawing on next page). A crossmember such as the one on the next page may be constructed, or LCF crossmembers may be obtained from your Chevrolet parts dealer.

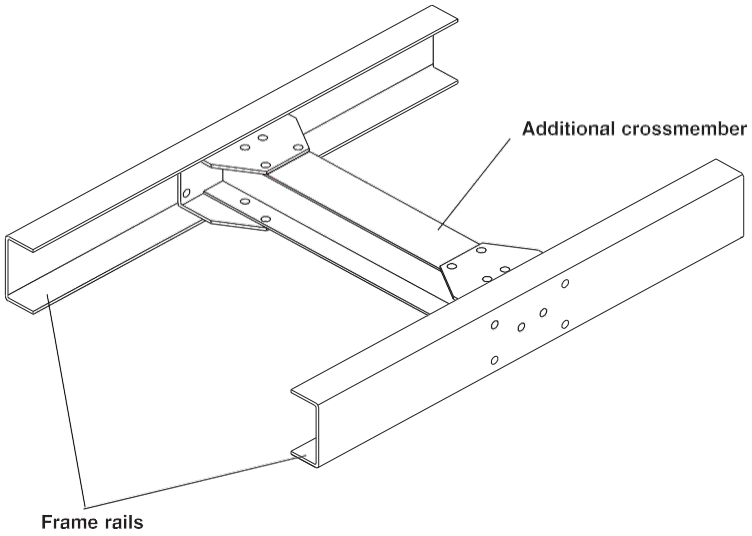


Figure 43

d) The maximum distance between crossmembers for the respective models is given in the table below.

ENGINE	DIESEL
Model	6500/7500
Maximum Distance Between Crossmembers (in.)	35.7

Figure 44

e) The drilling for any additional holes in the frame rails must comply with the DRILLING AND WELDING section of this book.

11. All other aspects of lengthening or shortening the wheelbase must comply with the applicable section of this Body Builder's Manual.

12. Please contact GM Upfitter for guidelines on 6500 XD Chassis frame modifications when the vehicle is equipped with an anti-lock brake system.

2025 Chevrolet Low Cab Forward

LCF Gas & Diesel Body Application Summary Chart

MODEL GVWR	MODEL CODE	WB (in)	BOC (in)	BODY LENGTHS							
				10 ft.	12 ft.	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.
3500 GAS 12,000 lbs	1C1	109	7.7	X	X						
	1C2	132.5	7.7			X					
	1C3	150	7.7				X	X			
	1C4	176	7.7						X		
3500 CREW CAB GAS 12,000 lbs	1D3	150	5		X						
	1D4	176	5				X				
4500 GAS 14,500 lbs	1F1	109	7.7	X	X						
	1F2	132.5	7.7			X					
	1F3	150	7.7				X				
	1F4	176	7.7					X	X		
4500 CREW CAB GAS 14,500 lbs	1G3	150	5		X						
	1G4	176	5				X				
5500 GAS 17,950 lbs	1R2	132.5	7.7		X	X					
	1R3	150	7.7				X				
	1R4	176	7.7					X	X		
5500 CREW CAB GAS 17,950 lbs	1S3	150	5		X						
	1S4	176	5				X				
5500 GAS 19,500 lbs	1U2	132.5	7.7		X	X					
	1U3	150	7.7				X				
	1U4	176	7.7					X	X		
5500 CREW CAB GAS 19,500 lbs	1V3	150	5		X						
	1V4	176	5				X				
4500 DIESEL 14,500 lbs	3F1	109	7.7		X						
	3F2	132.5	7.7			X					
	3F3	150	7.7				X[1]	X			
	3F4	176	7.7						X[1]		
4500 CREW CAB DIESEL 14,500 lbs	3G3	150	5.3		X[1]						
	3G4	176	5.3				X[1]				
4500 DIESEL 16,000 lbs	3Y1	109	7.7	X	X						
	3Y2	132.5	7.7			X					
	3Y3	150	7.7				X	X			
	3Y4	176	7.7					X	X		
4500 CREW CAB DIESEL 16,000 lbs	3Z3	150	5.3		X						
	3Z4	176	5.3				X				
5500 DR DIESEL[4] 17,950 lbs	3U1	109	7.7	X							
	3U2	132.5	7.7		X[1]	X					
	3U3	150	7.7				X	X			
	3U4	176	7.7						X		
	3U5	200	7.7							X	
5500 DR CREW CAB DIESEL[4] 17,950 lbs	3V3	150	5.3		X						
	3V4	176	5.3				X				
5500 DIESEL 19,500 lbs	3U1	109	7.7	X							
	3U2	132.5	7.7		X[1]	X					
	3U3	150	7.7				X				
	3U4	176	7.7					X	X		
	3U5	200	7.7							X	
	3U6	212	7.7								X
5500 CREW CAB DIESEL 19,500 lbs	3V3	150	5.3		X						
	3V4	176	5.3				X				

Notes:

[1] Indicated body size and chassis wheelbase combination requires the installation of a liftgate for an acceptable weight distribution.

[2] WARNING - Body selection recommendations are based on water level weight distribution and no accessories (i.e liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.

[3] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.

[4] Available through PIO ordering

2025 Chevrolet Low Cab Forward

6500 XD & 7500 XD Body Application Summary Chart

6500 XD

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MT1	25,950	152	10.4	X	X							
MT2		170				X						
MT3		188					X					
MT4		200						X				
MT5		212							X			
MT6		224								X		
MT7		236									X	
MT8		248										X

7500 XD Derate

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MW1	25,950	152	10.4	X	X							
MW2		170				X						
MW3		188					X					
MW4		200						X				
MW5		212							X			
MW6		224								X		
MW7		236									X	
MW8		248										X

Notes:

[1] WARNING - Body selection recommendations are based on water level weight distribution and no accessories (i.e.liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.

[2] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.

7500 XD: Dry Freight Bodies

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY ONLY								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X							
MV3		188				X						
MV4		200					X					
MV5		212						X				
MV6		224							X			
MV7		236							X	X		
MV8		248								X	X	

7500 XD: Dry Freight Bodies with Liftgate

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY LENGTHS W/ LIFTGATE								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X							
MV3		188				X						
MV4		200					X					
MV5		212						X				
MV6		224						X				
MV7		236							X			
MV8		248								X	X	

7500 XD: Refrigerated Freight Bodies

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY LENGTHS W/ REEFER								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X	X						
MV3		188				X	X					
MV4		200					X	X				
MV5		212						X				
MV6		224							X			
MV7		236								X		
MV8		248									X	X

Notes:

[1] WARNING - Body selection recommendations are based on water level weight distribution and no accessories unless indicated (i.e., liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.

[2] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.

2025 Chevrolet Low Cab Forward

Mechanical and Cab Specifications
Engine Horsepower and Torque Chart

ENGINE	MODEL(S)	NET HP[1] HP/RPM	NET TORQUE[1] HP/RPM	GROSS HP[1] HP/RPM	GROSS TORQUE[1] LBS-FT/RPM
GMPT 6.6L-V8	3500 HG GAS 4500 HG GAS 5500 HG GAS 5500 XG GAS	350/4500	425/3800	-	-
ISUZU 4HK1-TC	4500 HD DIESEL 4500 XD DIESEL 5500 XD DIESEL	210/2500	441/1850	215/2550	452/1850
CUMMINS B6.7	6500 XD 7500 XD DERATE 7500 XD	-	-	260/2400	660/1600

NOTES: [1] HORSEPOWER AND TORQUE RATINGS ARE MEASURED UNDER SAE J1349

GVWR / GCWR Ratings

The following table presents GVW ratings and corresponding GCW ratings for each model truck:

TRUCK MODEL	GVWR (lbs)	GCWR (lbs)*
3500 HG GAS	12,000	18,000
4500 HG GAS	14,500	20,500
5500 HG GAS	17,950	23,950
5500 XG GAS	19,500	25,500
4500 HD DIESEL	14,500	20,500
4500 XD DIESEL	16,000	22,000
5500 XD DERATE DIESEL	17,950	23,950
5500 XD DIESEL	19,500	25,500
6500 XD DIESEL	25,950	30,000
7500 XD DERATE DIESEL	25,950	33,000
7500 XD DIESEL	33,000	33,000

* The 4500 HD, 4500 XD, 5500 XD are not approved for Hot Shot applications.

Paint Code Chart

PAINT CODE INFORMATION

GM COLOR NAME	AKZO NOBEL CODE	DUPONT CODE	NEXA COLOR CODE	PPG CODE	SHERWIN WILLIAMS/ MARTIN SENOUR	SPIES HECKER CODE	STANDOX CODE	PANTONE (1)
Arc White	FLNA40156	729	729	91508	729	729	729	7541C
Wheatland Yellow	FLNA10182	812	812	83931	812	812	812	137C
Woodland Green	FLNA60181	807	807	48339	807	807	807	3308C
Cardinal Red	ISU736	736	736	75097	736	736	736	202C
Dark Blue	ISU695	695	695	909649	695	695	695	655C
Ebony Black II	ISU508	508	508	N/A	508	508	508	Black 6C

(1) The Pantone colors listed are the closest Pantone color numbers to the OEM paint colors and are given for reference only.

Low Cab Forward Towing Procedure

When towing a vehicle: Proper equipment must be used to prevent damage to vehicles during any towing. State and local laws which apply to vehicles in tow must be followed. Vehicles should not be towed at speeds in excess of 55 MPH (88 km/h). Connect to the main structural parts of the vehicle. Do not attach to bumpers, tow hooks or brackets. Use only equipment designed for this purpose. Follow the instructions of the wrecker manufacturer. A safety chain system must be used. The procedures below must be followed when towing to prevent possible damage.

Front End Towing (Front Wheels Off Ground)
To prepare a disabled vehicle for front end towing with front wheels raised off the ground, the following steps are necessary:
• Block the rear wheels of the disabled vehicle.
• Disconnect the propeller shaft at the rear axle. Secure the propeller shaft to the frame or cross member.

CAUTION: When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged.
If there is damage or suspected damage to the rear axle, remove the axle shafts.
Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.
Place a 10 cm (4 in) wood beam against the towing manual behind the bumper.
(If no 10 cm (4 in) is available, then remove the bumper.) Ensure towing chains do not come into contact with the horns or the bumper.

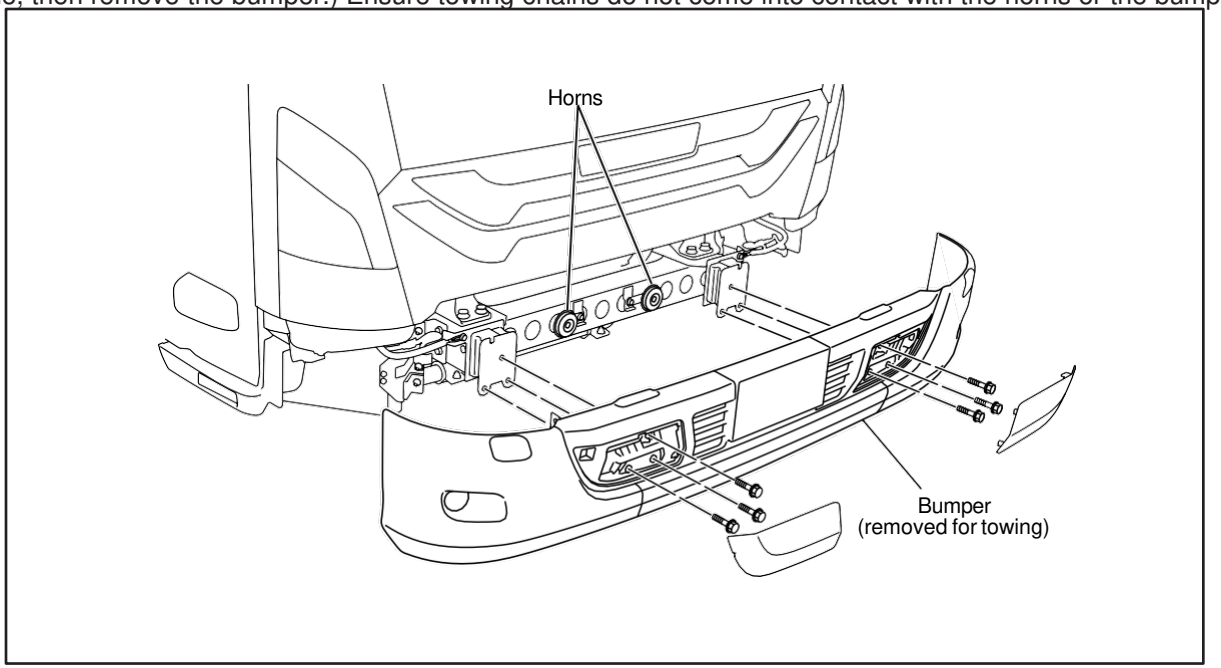


Figure 1

After Towing
After towing the vehicle, block the rear wheels and install axle shafts or driveshaft. Apply the parking brake before disconnecting from the towing vehicle.

Front End Towing (All Wheels On the Ground)
Your vehicle may be towed on all wheels provided the steering is operable. Remember that power steering and brakes will not have power assist. There must be a tow bar installed between the tow vehicle and the disabled vehicle.

Towing with all wheels on the ground
To prepare a disabled vehicle for front end towing with all wheels on the ground, the following steps are necessary:

- Block the wheels of the disabled vehicle.

- Disconnect the propeller shaft at the rear axle. Secure the propeller shaft to the frame or crossmember.

CAUTION:
When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged. Provide wood blocking to prevent towing chains and bar from coming into contact with the bumper. If there is damage or suspected damage to the rear axle, remove the axle shafts. Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.

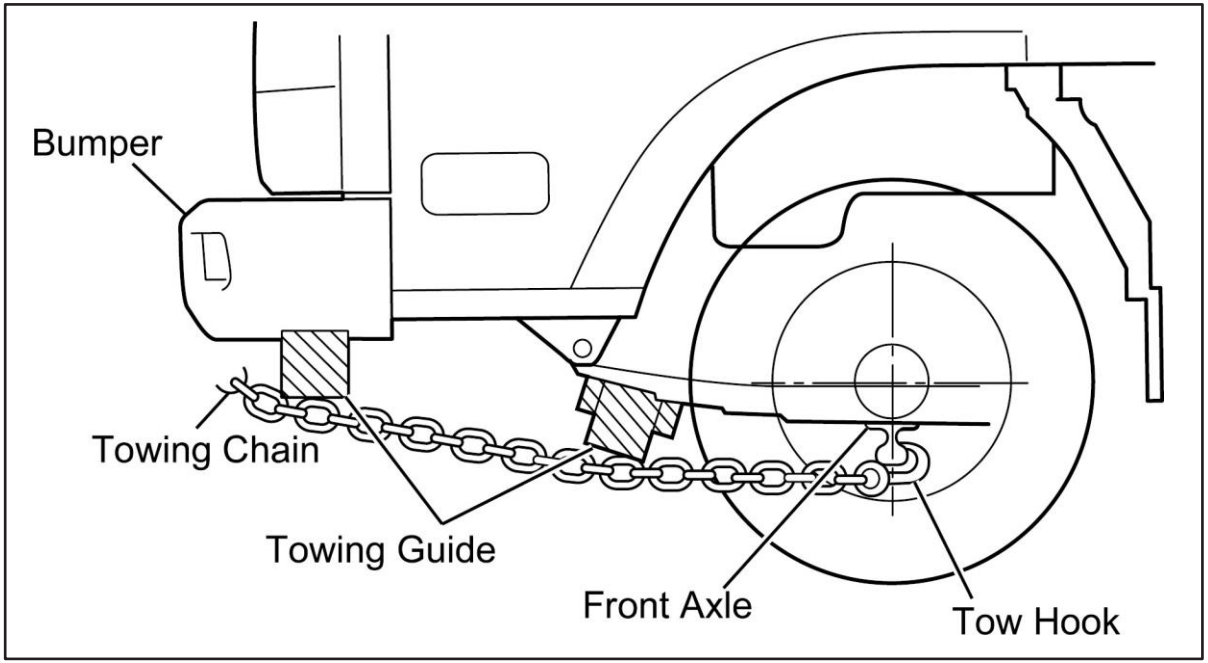


Figure 2

CAUTION:
When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged. Provide wood blocking to prevent towing chains and bar from coming into contact with the bumper. If there is damage or suspected damage to the rear axle, remove the axle shafts. Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.

After Towing
After towing the vehicle, block the rear wheels and install axle shafts or propeller shaft. Apply the parking brake before disconnecting from the towing vehicle. Check and fill rear axle with oil, if required.

Rear End Towing
When towing a vehicle with rear wheels raised, secure the steering wheel to maintain straight-ahead position. Make certain that the front axle is not loaded beyond the front axle gross axle weight rating (GAWR) as indicated on the vehicle's VIN and weight rating plate.

Special Towing Instructions

1. All state and local laws regarding such items as warning signals, night illumination, speed, etc., must be followed.

2. Safety chains must be used.

3. No vehicle should ever be towed over 55 MPH (88 km/h).

4. Loose or protruding parts of damaged vehicles should be secured prior to moving.

5. A safety chain system completely independent of the primary lifting and towing attachment must be used.

6. Operators should refrain from going under a vehicle which is being lifted by the towing equipment unless the vehicle is adequately supported by safety stands.

7. No towing operation which for any reason jeopardizes the safety of the wrecker operator or any bystanders or other motorists should be attempted.

6500 XD & 7500 XD Series Towing Procedure

When towing a vehicle: To move a disabled vehicle, it is best to rely on someone in the wrecker or tow truck business. If that is not possible, follow these procedures. When towing, use appropriate equipment and comply with state and local legal requirements. Do not try to start the engine by towing or pushing the vehicle.

CAUTION:

- **Be sure to chock the wheels when disconnecting the axle shaft. The vehicle could start to move and cause a serious accident. The vehicle will start moving upon disconnecting the axle shaft.**
- **Place the gearshift lever in the "N" position, and tow for a maximum distance of 6.2 miles (10 km) at speeds less than 25 MPH (40 km/h). Other than the above, disconnect the axle shaft when towing to avoid damage to the transmission.**
- **Whenever possible, tow a vehicle with the engine started. If the engine is not started:**
- **The brakes will not be as effective.**
- **The steering wheel will be hard to turn.**
- **The steering wheel could lock, making it impossible to move. This is extremely dangerous. (When the ignition key is removed.)**
- **If you apply any one of the air brake parking controls while the vehicle is moving, your rig will stop suddenly. If you are not ready for this, you or others could be injured. Do not apply any one of these controls while you are driving unless you have to make an emergency stop.**

Front End Towing (All wheels on the ground, or the front wheels are off the ground): When it is possible to operate the steering wheel, the vehicle can be towed with all wheels on the ground. If the engine cannot be started, the power steering system does not work, making steering difficult. In addition, when air pressure is low, the brakes will not work. Either install a tow bar between the towing vehicle and the disabled vehicle or use a tow truck to move the disabled vehicle. To prevent damage to the differential and pinion seal, the axle shafts need to be removed whenever the vehicle is towed with the rear tires on the ground. Remove the axle shaft and plug up the opening of the hub to prevent differential gear oil from leaking, or to prevent dirt or foreign objects from entering the axle. When towing, disconnect the axle shaft at the rear axle to ensure the transmission is not damaged.

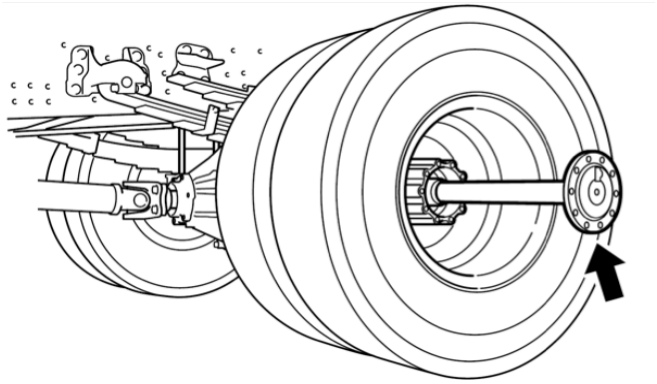


Figure 3

1. If the vehicle is towing or is towed, firmly attach a rope to the front towing hook on the same side.

2. During towing, carefully watch the stop lights of the towing vehicle in order to prevent slack in the rope. Ensure that there are no strong shocks or lateral force applied to the vehicle. Excessive towing load can damage the towing hook.

CAUTION:

• Do not tow a vehicle at an angle of greater than 15°. This could exert too much stress on the vehicle and damage it.
• Attach a rope to the towing hook only. Attaching a rope to any other part of the vehicle could damage it.
• Make sure there are no people near the towing rope and hook before towing a vehicle. If the rope snaps, people nearby could be injured.
• The towing hook is for use to tow a vehicle with about the same weight as the towing vehicle on good roads.
• When coming to channels or muddy areas, unload the vehicle. Do not use the towing hook to tow, but tow with a rope attached to the axle.

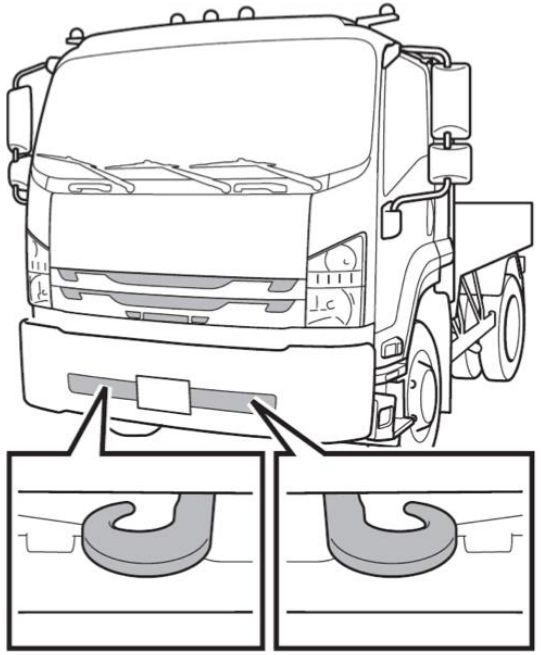
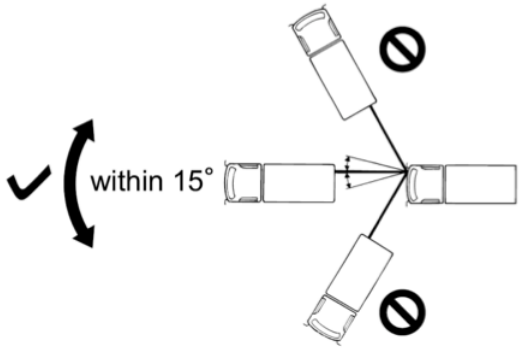


Figure 4



Weight Distribution Concepts

Weight Restrictions

The Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) of each Incomplete Vehicle are specified on the cover of its Incomplete Vehicle Document in conformance to the requirements of Part 568.4 of the Federal Motor Vehicle Safety Regulations. The final stage manufacturer is responsible under Part 567.5 to place the GVWR and the GAWR of each axle on the Final Vehicle Certification Label. The regulation states that the appropriate rating "shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicle's designated seating capacity."

Unloaded vehicle weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants.

During completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

1. The installation of a body or equipment that exceeds the rated capacities of this Incomplete Vehicle.
2. The addition of designated seating positions which exceeds the rated capacities of this Incomplete Vehicle.
3. Alterations or substitution of any components such as axles, springs, tires, wheels, frame, steering and brake systems that may affect the rated capacities of this Incomplete Vehicle.

Use the following chart to assure compliance with the regulations. Chassis curb weight and GVW rating is located in each vehicle section. Always verify the results by weighing the completed vehicle on a certified scale.

Curb Weight of Chassis (lbs.)		_____ (From required vehicle section)
PLUS weight of added body components, accessories or other permanently attached components.	+	_____ (Body, liftgate, reefer, etc.)
PLUS total weight of passengers, air conditioning and all load or cargo.	+	_____ (Driver, passengers, accessories and load)
EQUALS Gross Vehicle Weight (lbs.) (GVW) of completed vehicle.	=	_____ (Should equal GVWR from required vehicle section)

Figure 1

Gross Axle Weight Rating

The Gross Vehicle Weight is further restricted by the Gross Axle Weight Rating (GAWR). The maximum GAWR for both front and rear axles is listed in each Vehicle Section. Weight distribution calculations must be performed to ensure GAWR is not exceeded. Always verify the results by weighing the completed vehicle on a certified scale.

NOTE: Although the Front Gross Axle Weight Rating (FGAWR) plus the Rear Gross Axle Weight Rating (RGAWR) may exceed the Gross Vehicle Weight Rating (GVWR), the total GVW may not exceed the respective maximum GVWR.

The variation in the GAWRs allow the second stage manufacturer some flexibility in the design of the weight distribution of the attached unit.

Weighing the Vehicle

Front and rear GAWRs and total GVWR should be verified by weighing a completed loaded vehicle. Weigh the front and rear of the vehicle separately and combine the weights for the total GVWR. All three weights must be less than the respective maximum shown in the vehicle sections.

Tire Inflation

Tire inflation must be compatible with GAWR and GVWR as specified on the cover of the Incomplete Vehicle Document for each vehicle.

Center of Gravity

The design of the truck body should be such that the center of gravity of the added load does not exceed the guidelines as listed in each Vehicle Section. If the body is mounted in such a way that the center of gravity height exceeds the maximum height of the center of gravity designated for each model, the directional stability at braking and roll stability at cornering will be adversely affected. A vertical and/or horizontal center of gravity calculation must be performed if a question in stability arises to ensure the designed maximum height of the center of gravity is not violated.

Weight Distribution

A truck as a commercial vehicle has one purpose. That purpose is to haul some commodity from one place to another. A short distance or a long distance, the weight to be hauled, more than any other factor, determines the size of the truck. A small weight requires only a small truck; a large weight requires a large truck. A simple principle, but it can easily be misapplied. In any case, selecting the right size truck for the load to be hauled will ensure that the job will be done and that it will be able to be done with some degree of reliability and within the legal limitations of total gross weight and axle gross weights.

Not only must a truck be selected that will handle the total load, but the weight must also be properly distributed between the axles. This is of extreme importance from both a functional and economic aspect. If a truck consistently hauls less than its capacity, the owner is not realizing full return on his investment and his operating costs will be higher than they should be. If the truck is improperly loaded or overloaded, profits will be reduced due to increased maintenance costs and potential fines resulting from overloading beyond legal limitations. Careful consideration must be given to distribution of the load weight in order to determine how much of the total, including chassis, cab, body and payload, will be carried on the front axle and how much will be carried on the rear axle, on the trailer axles and the total. Moving a load a few inches forward or backward on the chassis can mean the difference between acceptable weight distribution for the truck or an application that will not do the job satisfactorily.

Every truck has a specific capacity and should be loaded so that the load distribution is kept within Gross Axle Weight Ratings (GAWR) and the truck's Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR) for a tractor/trailer and the weight laws and regulations under which the truck will operate.

Another key concept in weight distribution is ensuring that the proper percentage of total vehicle weight (GVW) is distributed to each individual axle. This is typically analyzed by calculating what percentage of the total vehicle weight is being supported by the front axle. To ensure proper traction and vehicle operation, please reference the chart below for the recommended minimum front axle loading percentage by chassis model.

Minimum Recommended Front Axle Loading % by Chassis Model		
MODEL	GVWR (lbs)	Minimum FA %
3500 HG GAS	12,000	30.0%
4500 HG GAS	14,500	30.0%
5500 HG GAS	17,950	25.8%
5500 XG GAS	19,500	25.8%
4500 HD DIESEL	14,500	30.0%
4500 XD DIESEL	16,000	30.0%
5500 XD DIESEL DERATED	17,950	30.0%
5500 XD DIESEL	19,500	30.0%
6500 XD DIESEL	25,950	30.0%
7500 XD DIESEL DERATED	25,950	30.0%
7500 XD DIESEL	33,000	30.0%

An improper weight distribution will cause problems in many areas:

1. Excessive front-end wear and failure
    a. Tie-rod and kingpin wear
    b. Front axle failure
    c. Overloading of front suspension
    d. Wheel bearing failure
2. Rapid tire wear - When the weight on a tire exceeds its rating capacity, accelerated wear will result and could result in tire failure.
3. Rough, erratic ride - If the center of the payload is directly over or slightly behind the rear axle, the lack of sufficient weight on the front axle will create a bobbing effect, very rough ride, and erratic steering. This condition will be magnified when the truck is going uphill.
4. Hard steering
    a. When loads beyond the capacity of the front axle are imposed upon it, the steering mechanism is also overloaded, and hard steering will result.
    b. Excessive overloading could result in steering component damage or failure.
5. Unsafe operating and conditions
    c. Poor traction on the steering axle effects the safety of the driver and equipment, particularly on wet, icy and slippery surfaces. Experience indicates that approximately 30% of the total weight at the ground on a truck or tractor should be on the front axle with a low cab forward vehicle.
    d. When a truck is overloaded, a dangerous situation may exist because minimum speeds cannot always be maintained, directional control may not be precise and insufficient braking capacity can cause longer than normal braking distances.
6. High maintenance costs - Improper weight distribution and overloading cause excessive wear and premature failure of parts. Additional stresses imposed on the frame by the misapplication of wheelbases may be instrumental in causing the frame to crack or break.
7. Noncompliance with weight laws and regulations - When there is the possibility that axle loads will exceed existing weight laws and regulations, careful weight distribution is necessary to provide a correct balance between front and rear axle loads and total load within legal limitations.

In this way, maximum payloads may be carried without exceeding legal limits. If the body is too long for a wheelbase, the center of the body and payload is placed directly over the rear axle. This places all the payload on the rear axles, resulting in overloading the rear tires, rear axle springs and wheel bearings and potentially exceeding the rear axle legal weight limit. The front axle is then carrying no part of the payload and is easily lifted off the ground when going over rough terrain, creating a very rough ride and temporary loss of steering control. If the body is too short for the wheelbase used, frame stress may be increased and may result in excessive loads on the front axle. Excessive front axle loads increase wear on the kingpins and bushings, wheel bearings and steering gear. Excessive front axle loads also overstress the front axle, springs, tires, and wheels. All of these contribute directly to higher maintenance costs and hard steering, both of which are undesirable.

Weight distribution analysis involves the application of basic mathematical principles to determine the proper positioning of the payload and body weight in relation to the wheelbase of the truck chassis.

It is much less expensive to work all of this out on paper, make mistakes on paper and correct them there than to set up the truck incorrectly and either have it fail to do the job or, much worse, fail completely.

It is important to become familiar with the dimensions of the truck, as these will be needed to perform the necessary calculations.

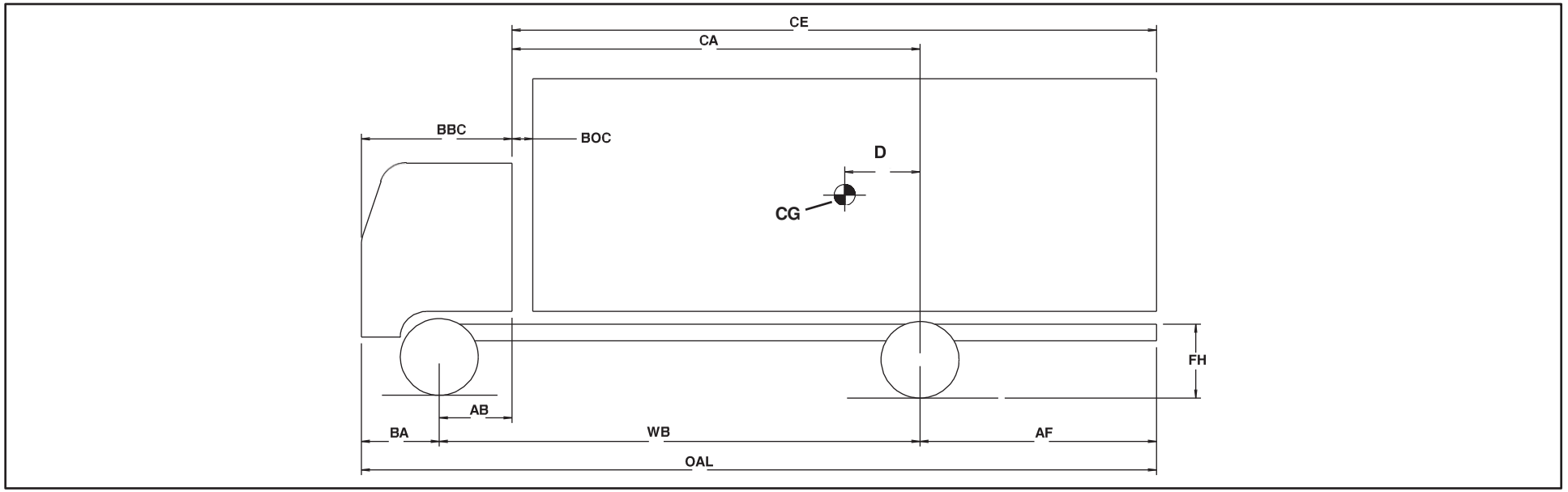


Figure 2

Glossary of Dimensions

BBC – Bumper to back of cab
BA – Bumper to axle
CA – Cab to axle
AB – Axle to back of cab
BOC – Back of cab clearance
CE – Cab to end of frame
CG – Center of gravity of body and payload
WB – Wheelbase
OAL – Overall length
AF – Axle to end of frame
FH – Frame height

Weight Distribution Formulas

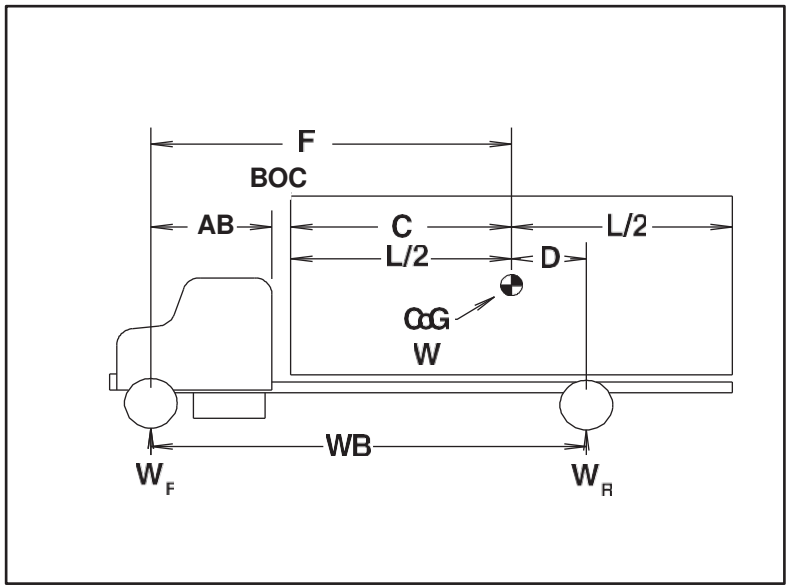


Figure 3

AB – Front axle to back of cab
BOC – Distance between cab and body or trailer
C – Front of body to C.G. or front of trailer to kingpin
D – Distance C.G. of body or fifth wheel is ahead of rear axle
F – (AB + BOC +C) or distance C.G. of weight of fifth wheel is behind front axle
WB – Wheelbase
W – Weight of body plus payload, or kingpin load
Wf – Portion of W transferred to front axle
Wr – Portion of W transferred to rear axle
C – Length of body divided by 2
L/2 – Load location at half of body length
L – Distance over which the payload is spread within the Body

Basic Formulas

(a) W x D = Wf x WB

(b) W x F = Wr x WB

or

(c) WB = (AB + BOC + C + D) = (F + D)

(d) W = Wf + Wr

1. $W_f = \frac{W \times D}{WB}$

2. $D = \frac{W_f \times WB}{W}$

3. $WB = \frac{W \times D}{W_f}$

4. $W = \frac{W_f \times WB}{D}$

5. $W_r = \frac{W \times F}{WB}$

6. $F = \frac{W_r \times WB}{W}$

7. $WB = \frac{W \times F}{W_r}$

8. $W = \frac{W_r \times WB}{F}$

Weight Distribution Formulas in Words

To find:

1. Weight transferred to front axle = $\frac{\text{(Total weight) x (Distance C.G. is ahead of the rear axle)}}{\text{(Wheelbase)}}$

2. Distance C.G. must be placed ahead of rear axle = $\frac{\text{(Weight transferred to the front axle) x (Wheelbase)}}{\text{(Total weight)}}$

3. Wheelbase = $\frac{\text{(Total weight) x (Distance C.G. is ahead of the rear axle)}}{\text{(Weight to be transferred to the front axle)}}$

4. Total Weight = $\frac{\text{(Weight to be transferred to the front axle) x (Wheelbase)}}{\text{(Distance C.G. is ahead of the rear axle)}}$

1.	Weight transferred to rear axle	=	(Total weight) x (Distance C.G. is behind the front axle) / (Wheelbase)
2.	Distance C.G. must be placed behind the front axle	=	(Weight transferred to the rear axle) x (Wheelbase) / (Total weight)
3.	Wheelbase	=	(Total weight) x (Distance C.G. is behind the front axle) / (Weight to be transferred to the rear axle)
4.	Total Weight	=	(Weight to be transferred to the rear axle) x (Wheelbase) / (Distance C.G. is behind the front axle)
9.	Remember	=	Total weight must always equal weight transferred to the rear axle plus the weight transferred to the front axle

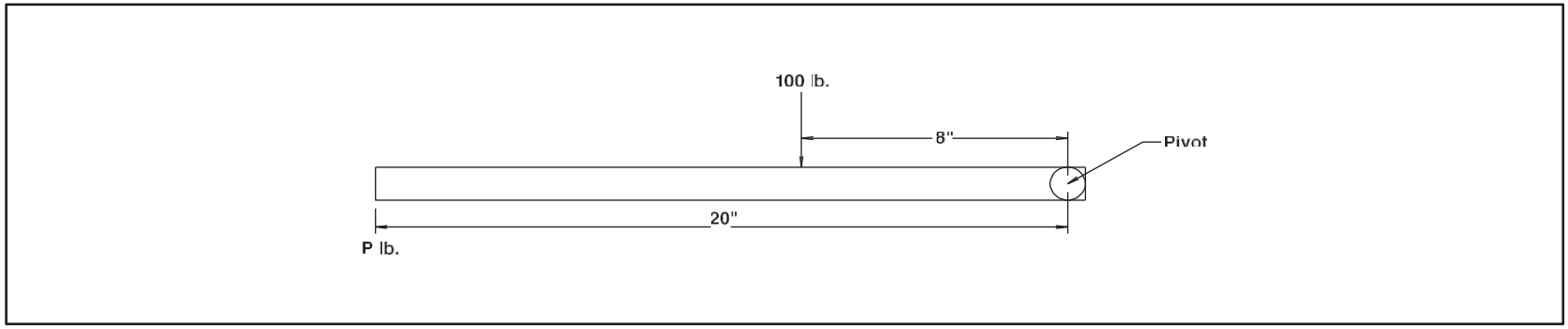


Figure 4

To find the value of “P”, the leverages must be equal for balance.

Example: 100 lbs. x 8 in. = “P” x 20 in.

or “P” = $\frac{\text{100 lbs. x 8 in.}}{\text{20 in.}}$

Therefore: “P” = 40 lbs.

This same approach is used to determine axle loadings on a tractor or truck chassis. Assuming the rear axle serves as a pivot point, the front axle load can be determined by applying the lever principle.

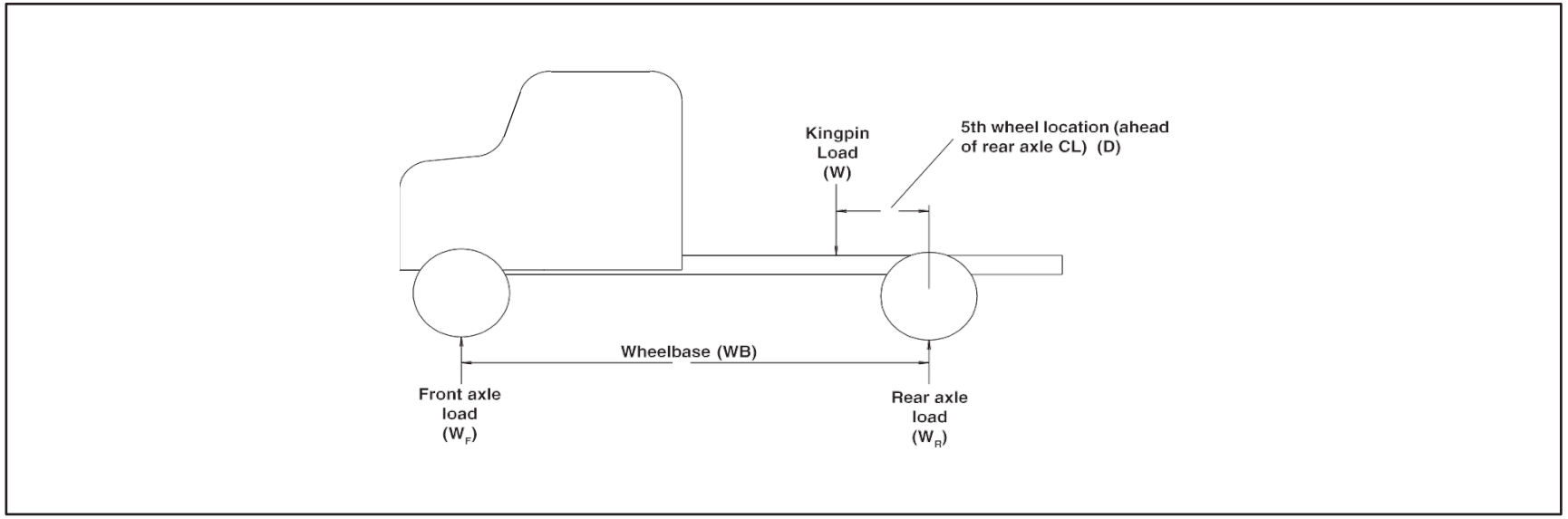


Figure 5

Front Axle Load: = $\frac{\text{Kingpin Load x 5th Wheel Location}}{\text{Wheelbase}}$

Rear Axle Load: = Kingpin Load – Front Axle Load

Example: (4) A tractor has a wheelbase of 150 inches. If the kingpin load is 20,000 lbs. and the fifth wheel location is 15 inches, find the total weight on the front and rear axles. The tare weight of the tractor is 7,000 lbs. on the front axle and 4,400 lbs. on the rear axle.

Front Axle Load = $\frac{20{,}000 \times 15}{150 \text{ WB}}$ = 2,000 lbs.

Rear Axle Load = 2,000 + 7,000 lbs. = 9,000 lbs.

Therefore:
Total Front Axle Weight = 2,000 + 9,000 lbs. = 11,000 lbs.

Total Rear Axle Weight = 4,400 + 18,000 lbs. = 22,400 lbs.

In calculating the weight distribution for a truck, the same lever principle is applied; however, there is one change in the initial consideration of the method of loading the truck body. Instead of the trailer kingpin location ahead of the rear axle centerline, we must determine the position of the center of gravity of the payload and body weight in relation to the rear axle centerline.

For our calculations, we assume that the payload is distributed in the truck body so that the load is supported evenly over the truck body floor (water-level distribution). The weight of the body itself is also considered to be evenly distributed along the truck frame. In this manner, we can add the payload and body weights together and calculate the distribution on the vehicle chassis as an evenly distributed load on the truck frame rails.

So that we can make the necessary calculation in a simple manner, the total body and payload weight is considered to act at the center of gravity which will be at the center of the body length.

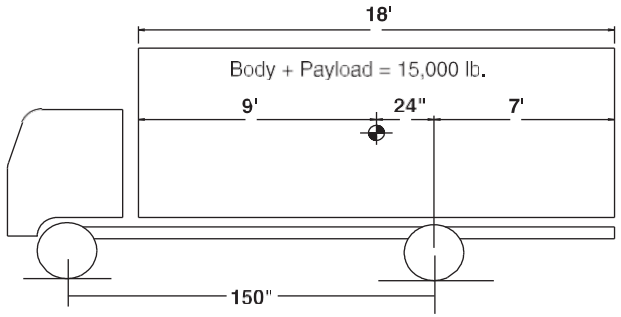


Figure 6

Example:

$$\text{Front Axle Load} = \frac{(\text{Body Weight} + \text{Payload}) \times \text{C of G location}}{\text{Wheelbase}}$$

$$\text{Rear Axle Load} = (\text{Body Weight} + \text{Payload}) - \text{Front Axle Load}$$

$$\text{Therefore, Front Axle Load} = \frac{15{,}000 \times 24}{150} = 2{,}400 \text{ lbs.}$$

Rear Axle Load = 15,000 – 2,400 = 12,600 lbs.

If the truck tare weight without the body is 5,000 lbs. on the front axle and 2,400 lbs. on the rear axle, then
Total Front Axle Weight = 5,000 + 2,400 = 7,400 lbs. and
Total Rear Axle Weight = 2,400 + 12,600 = 15,000 lbs.

This same lever principle is applied in all calculations of weight distribution, whether we are dealing with concentrated loads as with a kingpin load acting on a fifth wheel or if it be with an evenly distributed load as with a truck body. The same approach is made in calculating an evenly distributed load on a trailer.

In the case of a tractor/trailer or a tractor with a set of double or triple trailers, each unit is handled as a separated unit and then combined to determine the total.

This simple example illustrates how the principles are applied. Using the formulas, find the weight distributed to each axle.

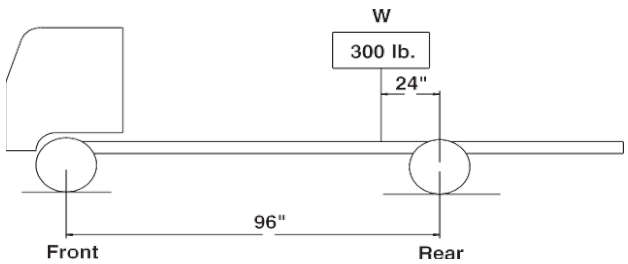


Figure 7

	Front Weight		**Rear Weight**
A.	$Wf = \frac{W \times D}{WB}$	A.	$W - Wf$
B.	$\frac{300 \times 24}{96}$	B.	$300 - 75$
C.	= 75 lbs.	C.	= 225 lbs.

The body manufacturer can provide the body length and weight, or actual measurements of the body may be taken with a tape. Generally, (D) is unknown. This you must find logically, or with a tape measure.

Find (D) and then solve for Wf and Wr.

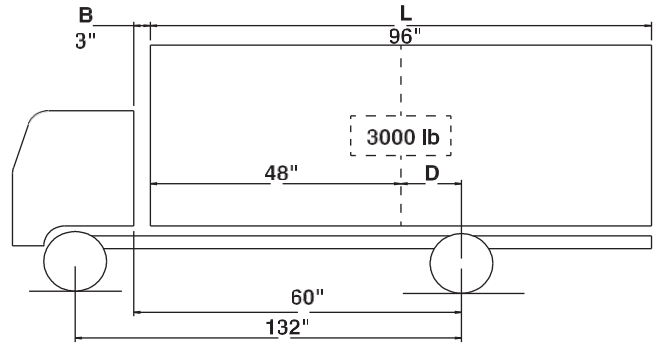


Figure 8

D = 60–3–48 = 9 in.

W_f = 205

W_r = 2,795

Recommended Weight Distribution % of Gross Vehicle Weight by Axle

Conventional (2 Axle)

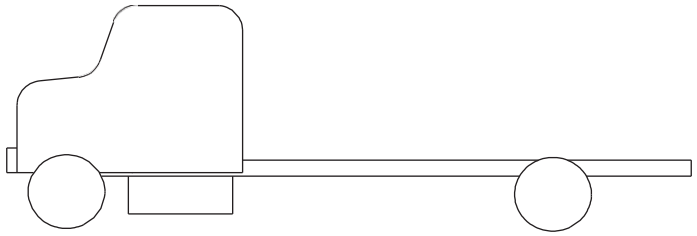


Figure 9

COE (2 Axle)

Figure 10

Conventional (3 Axle)

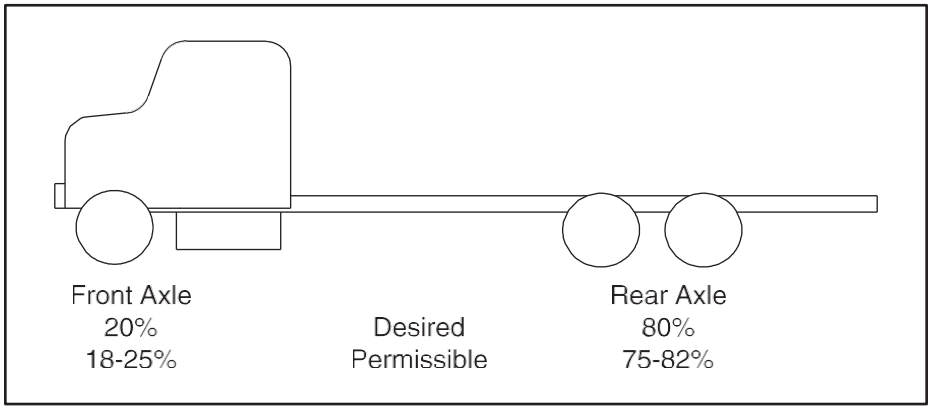


Figure 11

COE (3 Axle)

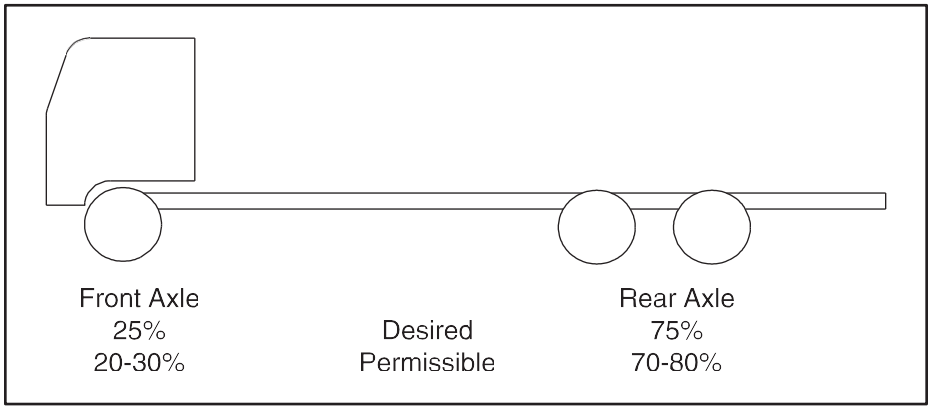
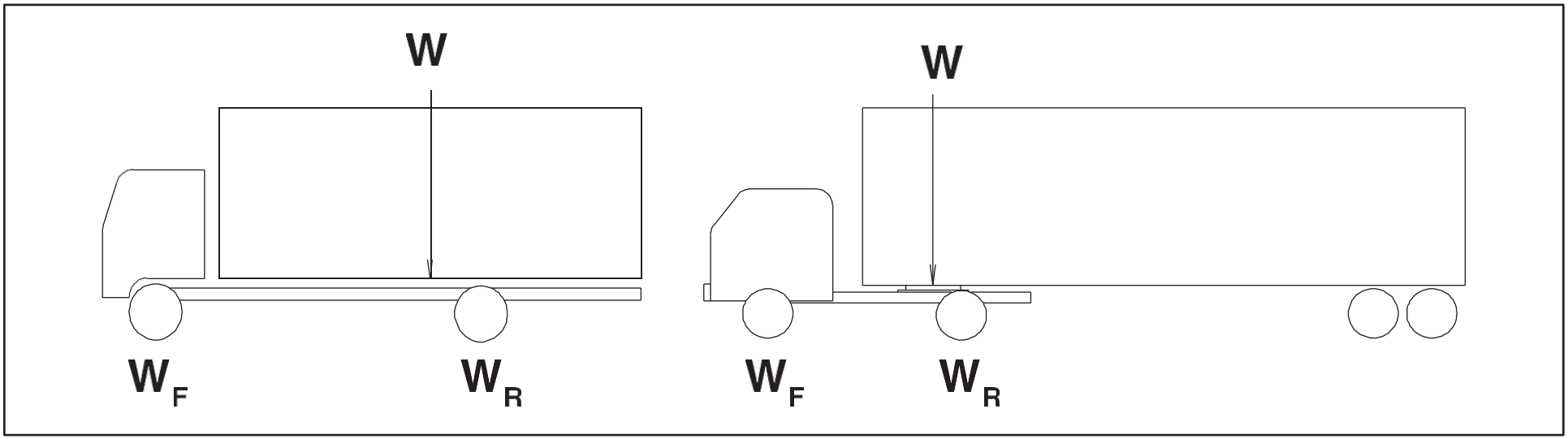


Figure 12

Calculating tractor/trailer weight distribution can be thought of in the same terms as calculating full trucks.



The weight at the center of the body and the load when applied is the same as the single point load of the kingpin on the fifth wheel.

Figure 13

Trailer Weight

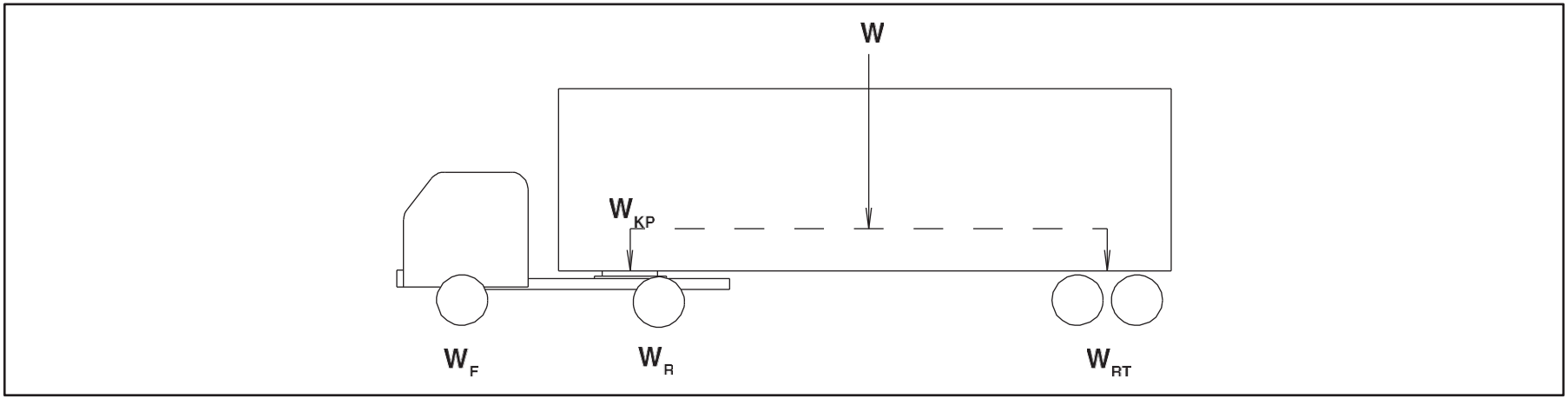


Figure 14

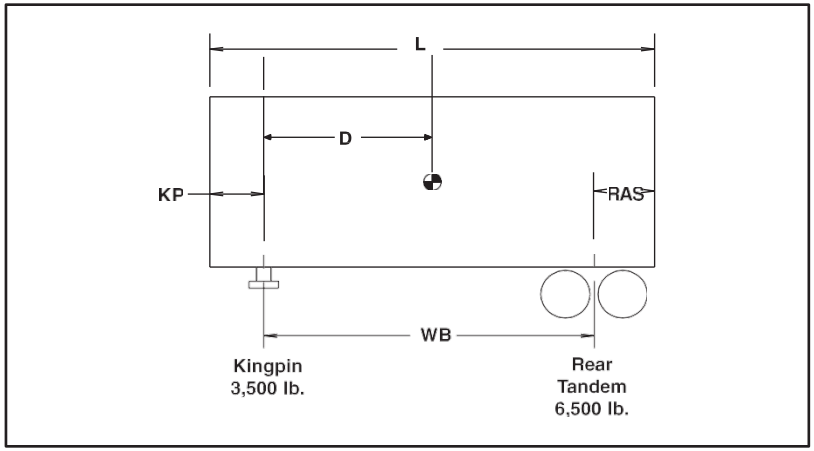


Figure 15

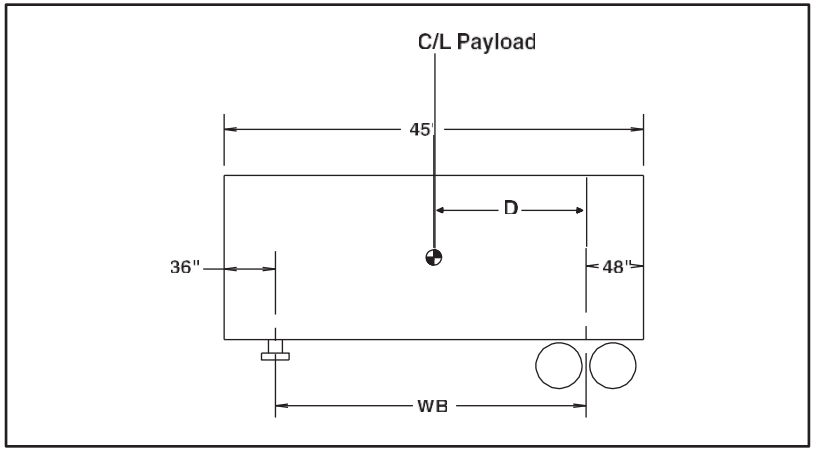


Figure 16

In the following example, a 50,000-pound payload at water-level loading. Calculate the payload (PL) weight transfer to kingpin and the rear axle.
NOTE: Apply the same principles used with truck chassis.

Payload at Kingpin

$$\mathbf{PL_{kp} = \frac{W \times D}{WB}}$$

Calculate the “D” dimension.

OAL/2 – AF = D
45 feet/2 – 48 inches – 36 inches = 186 inches

$$PL_{kp} = \frac{50{,}000 \text{ lbs.} \times 186 \text{ in.}}{456 \text{ in.}} = 20{,}394 \text{ lbs.}$$

PL_{kp} =20,394 lbs.

Payload at Rear Tandem

$PL_{rt} = W - PL_{kp}$

PL_{rt} = 50,000 lbs. – 20,394 lbs. = 29,606 lbs.

PL_{rt} = 29,606 lbs.

Once the weight on the kingpin is determined, it can then be treated on the tractor the same as a weight on a straight truck.

Due to the variations in hauling and wheelbase requirements from one truck application to another, there is no one specific fifth wheel setting that will apply in all cases.

A “rule of thumb” which has proven satisfactory in many cases sets the fifth wheel one inch ahead of the rear axle for every 10 inches of wheelbase. In the case of tandem axles, the wheelbase is measured from the center line of the front axle to the midpoint between the tandem rear axles. The location of the fifth wheel fixes the load distribution between the front and rear axles. Too far forward and the front axle is overloaded. If too far back, the front axle may be too lightly loaded and cause an unsafe steering and braking control situation at the front axle.

(Weight Distribution Concepts Section – continued from previous page)

A tractor on a hill with the fifth wheel set at the axle center line or too close to it will result in an unsafe handling situation by transferring too much weight to the rear axle and actually unloading the front axle.

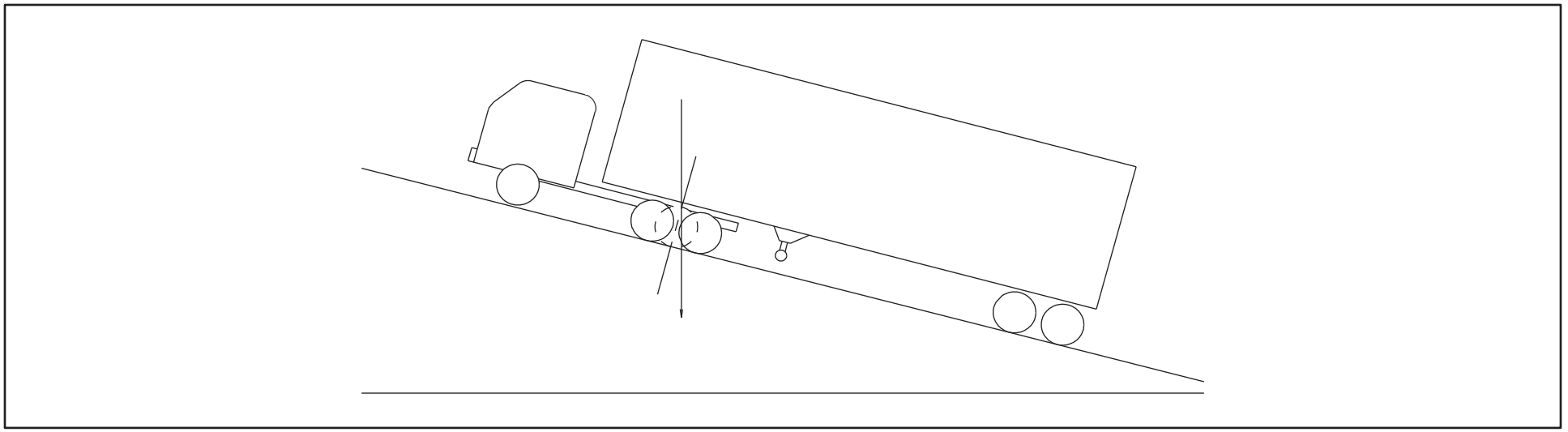


Figure 17

Performance Calculations

The following calculations have been included to help you determine the performance characteristics required by your customers and to select the appropriate model vehicle:

1. Speed Formula

This formula can be used to determine:

1. Top speed of the vehicle.

2. Speed in a given gear.

3. Final ratio required for a given speed.

4.

$$\textbf{MPH @ Governed Speed} = \frac{\textbf{(60) x (RPM)}}{\textbf{(Rev/Mile) x (Gear Ratio)}}$$

Definitions in formula:

RPM	=	Revolutions per minute of the engine at Governed Speed
Rev/Mile	=	Tire revolutions per mile
Gear Ratio	=	The product of the axle ratio times the transmission ratio
60	=	Time Constant

Example: LCF 12,000 GVWR automatic transmission.

RPM	=	3,000
Rev/Mile	=	674
Gear Ratio	=	.703 x 5.375

MPH @ Governed Speed = $\frac{(60) \times (3{,}000)}{(674) \times (.703 \times 5.375)}$

MPH @ Governed Speed = 70 MPH

2. Grade Horsepower Formula

This formula can be used to determine horsepower required for a given grade and speed.

$$\textbf{Horsepower Req'd. for a given grade} = \frac{\textbf{GVWR x Grade x Speed}}{\textbf{37,500 x Efficiency Factor}} \textbf{ + AHP}$$

Definitions in formula:

GVWR	=	Gross Vehicle Weight Rating
Grade	=	Grade anticipated in percent
Speed	=	Speed in miles per hour
37,500	=	Constant
Efficiency Factor	=	Factor for losses in drivetrain due to friction (use 0.9 for a 90% efficient driveline)
AHP Resistance	=	Horsepower required to overcome wind force

Example: LCF 11,050 GVWR automatic transmission with a van body.

GVWR	=	12,000 lbs.
Grade	=	1 percent
Speed	=	55 MPH
37,500	=	Constant
Efficiency Factor	=	0.9
AHP Resistance	=	53.6 HP (see the following formula for calculation)

$$\textbf{HP Required for Grade} = \frac{\textbf{12,000 x 1 x 55}}{\textbf{37,500 x 0.9}} + \textbf{53.67}$$

HP Required for Grade = 73.22

3. Air Resistance Horsepower Formula

This formula is used to determine the horsepower required to overcome air resistance at a given speed.

$$\textbf{Air Resistance Horsepower} = \frac{\textbf{FA x Cd x (MPH)}^3}{\textbf{156,000}}$$

Definitions in formula:

FA	=	Frontal area of vehicle in square feet
Cd	=	Aerodynamic Drag Coefficient
MPH	=	Speed of vehicle in miles per hour
156,000	=	Constant

Frontal area is calculated by multiplying the height of the vehicle by the width of the vehicle and subtracting the open area under the vehicle from the total.

Aerodynamic Drag Coefficients (Source Material: Motor Truck Engineering Handbook):

0.70	for most trucks, semitrailer combinations with tanks or van bodies
0.77	for double and triple trailers and flatbeds with loads

Example: LCF 12,000 GVWR van body with 96" wide, 115" high (84" body height + 31" frame height).

$$\textbf{FA} = \frac{\textbf{(96) x (115)}}{\textbf{(12) x (12)}} - \textbf{3.2}$$

FA = 73.47 ft.2
Cd = 0.70
Speed = 55 mph

$$\text{Air Resistance HP} = \frac{73.47 \times 0.70 \times (55)^3}{156{,}000}$$

$$\text{Air Resistance HP} = 54.85$$

4. Engine Horsepower Formula

This formula can be used to derive the output at a given RPM and torque.

$$\textbf{Horsepower} = \frac{\textbf{Torque x RPM}}{\textbf{5,252}}$$

Definitions in formula:

Torque = Twisting output of engine given in lbs.-ft.
RPM = Revolutions per minute of engine
5,252 = Constant

Example: LCF 12,000 GVWR automatic transmission.

Torque = 347 lbs.-ft.
RPM = 2,000

$$132 \text{ HP} = \frac{(347) \times (2{,}000)}{5{,}252}$$

5. Gradeability Formula

This formula can be used to determine how large of a grade a vehicle can climb.

$$\textbf{Percent Grade} = \frac{\textbf{1,200 x (T) x (E) x (C) x (R)}}{\textbf{GVWR x r}} - \textbf{RR}$$

Definitions in formula:

1,200	=	Constant
T	=	Maximum Torque of Engine
E	=	Engine Efficiency (0.9)
C	=	Driveline Efficiency (0.9)
R	=	Transmission Ration x Axle Ratio
RR	=	Rolling Resistance (see following chart)
GVWR	=	Gross Vehicle Weight Rating
r	=	Loaded radius of tire

Example: LCF 12,000 GVWR automatic transmission on concrete highway.

T	=	347 lbs.-ft.
E	=	0.9
C	=	0.9
R	=	.703 x 5.375 (in overdrive)
RR	=	1.0
GVWR	=	12,000
r	=	14.1 in.

$$\textbf{Percent Grade} = \frac{\textbf{1,200 x (347) x (0.9) x (0.9) x (.703) x (5.375)}}{\textbf{12,000 x 14.1}} - \textbf{1.0}$$

Percent Grade = 7.53 - 1

Gradeability = 6.53%

Road Rolling Resistance			
Road Rolling Resistance – Expressed in Percent Grade			
Road Surface	**Grade Road**	**Surface**	**Grade**
Concrete, excellent	1.0	Cobbles, ordinary	5.5
Concrete, good	1.5	Cobbles, poor	8.5
Concrete, poor	2.0	Snow, 2 inches	2.5
Asphalt, good	1.25	Snow, 4 inches	3.75
Asphalt, fair	1.75	Dirt, smooth	2.5
Asphalt, poor	2.25	Dirt, sandy	3.75
Macadam, good	1.5	Mud	3.75 to 15.0
Macadam, fair	2.25	Sand, level soft	6.0 to 15.0
Macadam, poor	3.75	Sand, dune	16.0 to 30.0

Figure 19

6. Startability Formula

This formula is used to determine what type of a grade a vehicle can be started on.

$$\textbf{Startability} = \frac{\textbf{(1,200) x (CET) x (E) x (C) x (R)}}{\textbf{(GVWR x r)}} - \textbf{10\%}$$

Definitions in formula:

1,200 = Constant
CET = Clutch Engagement Torque
E = 0.9
C = 0.9
R = Transmission x Axle Ratio
10% = Average break away resistance and static inertia constant
GVWR = Gross Vehicle Weight Rating
r = Loaded radius of tire

Example: LCF 12,000 GVWR manual transmission.

CET	=	260 lbs.-ft.
R	=	6.02 x 4.10
GVWR	=	12,000 lbs.
r	=	14.1 in.

$$\text{Startability} = \frac{(1{,}200) \times (260) \times (0.9) \times (0.9) \times (6.02 \times 4.10)}{(12{,}000 \times 14.1)} - 10\%$$

Startability = 26.86%

7. Vertical Center of Gravity Formula

These formulas are used to estimate the vertical center of gravity of a completed vehicle in order to determine whether maximum allowable limits have been exceeded. This formula should be used when encountering high center of gravity loads.

7.1 Wv x (Vv) = Mv
7.2 Wb x (Vb) = Mb
7.3 Wp x (Vp) = Mp
7.4 We x (Ve) = Me

$$\text{7.5 } \mathbf{VCg} = \frac{\mathbf{(Mv + Mb + Mp + Me)}}{\mathbf{(Wv + Wb + Wp + We)}}$$

Definitions in formula:

VCg	=	The total average vertical center of gravity of the completed vehicle (vehicle, body, payload and equipment)
Wv	=	Weight of vehicle
Wb	=	Weight of body
Wp	=	Weight of payload
We	=	Weight of equipment

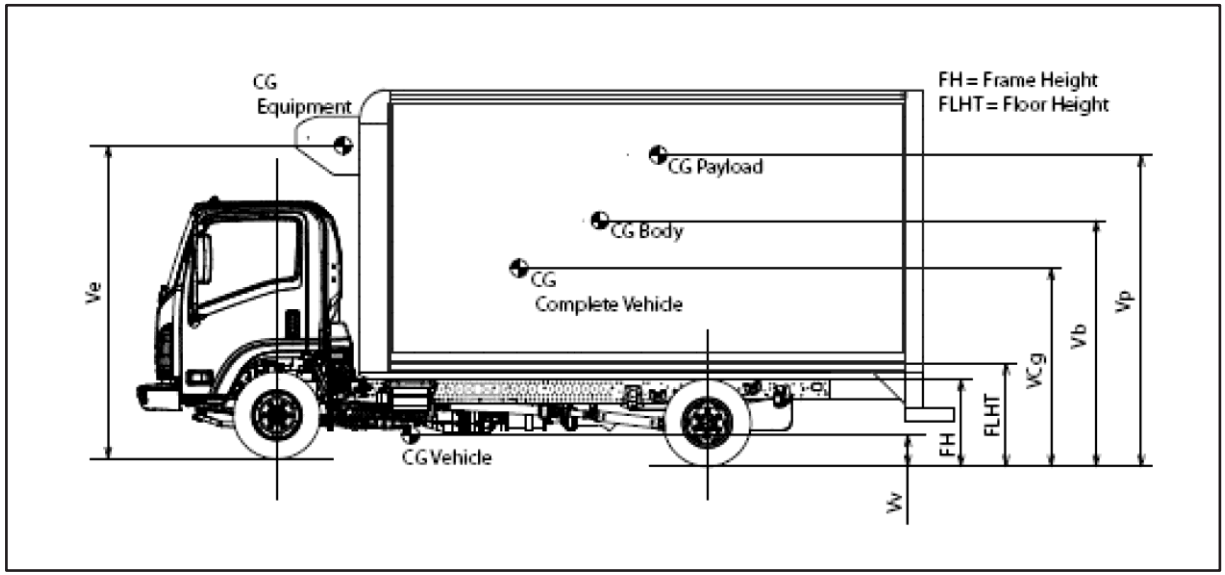


Figure 20

Definitions in formula (continued):

Vv = Distance from ground to center of gravity of the vehicle
Vb = Distance from ground to center of gravity of the body
Vp = Distance from ground to center of gravity of the payload
Ve = Distance from ground to center of gravity of the equipment
Mv = Moment of vehicle
Mb = Moment of body
Mp = Moment of payload
Me = Moment of equipment

Example: LCF 12,000 GVWR automatic transmission, 132” WB, 14’ body length, 84” high body, full payload of boxes stacked to a maximum height of 48” above the flooring.

Wv = 5,291 lbs. (from vehicle specifications)
Wb = 2,100 lbs. (from body manufacturer)
Wp = 4,609 lbs. (GVWR – (Wv + Wb + We)
Vv = 24.9 in. (from Body Builder’s Manual, LCF Section)
Vb = 80 in. (from body manufacturer)
Vp = 62 in. (1/2 of payload height + frame height + height from frame to flooring)
Mv = 5,291 x 24.9 = 131,746 lbs.-in. (from 7.1)
Mb = 2,100 x 80 = 168,000 lbs.-in. (from 7.2)
Mp = 4,609 x 62 = 285,758 lbs.-in. (from 7.3)

We, Ve, Me = None in this example

$$VCg = \frac{(131,746+168,000+285,758)}{(5,291 + 2,100 + 4,609)}$$

$$VCg = \frac{(528,504)}{(12,000)} = 48.8 \text{ inches}$$

8. Horizontal Center of Gravity Formula

These formulas are used to estimate the horizontal center of gravity of a completed vehicle in order to determine whether it exists between the centerlines of the front and rear axles. This formula should be used when a load and/or permanent equipment (liftgate, reefer unit, snowplow, etc.) is installed on either extreme along the completed vehicle's overall length.

8.1 Wv x (Hv) = Mv

8.2 Wb x (Hb) = Mb

8.3 Wp x (Hp) = Mp

8.4 We x (He) = Me

$$\textbf{8.5 HCg} = \frac{\textbf{(Mv+Mb+Mp+Me)}}{\textbf{(Wv + Wb + Wp + We)}}$$

Definitions in formula:

HCg	=	The total average horizontal center of gravity of the completed vehicle (vehicle, body, payload and equipment)
Wv	=	Weight of vehicle
Wb	=	Weight of body
Wp	=	Weight of payload
We	=	Weight of equipment
Hv	=	Distance from front axle to center of gravity of the vehicle
Hb	=	Distance from front axle to center of gravity of the body
Hp	=	Distance from front axle to center of gravity of the payload
He	=	Distance from front axle to center of gravity of the equipment
Mv	=	Moment of vehicle
Mb	=	Moment of body
Mp	=	Moment of payload
Me	=	Moment of equipment

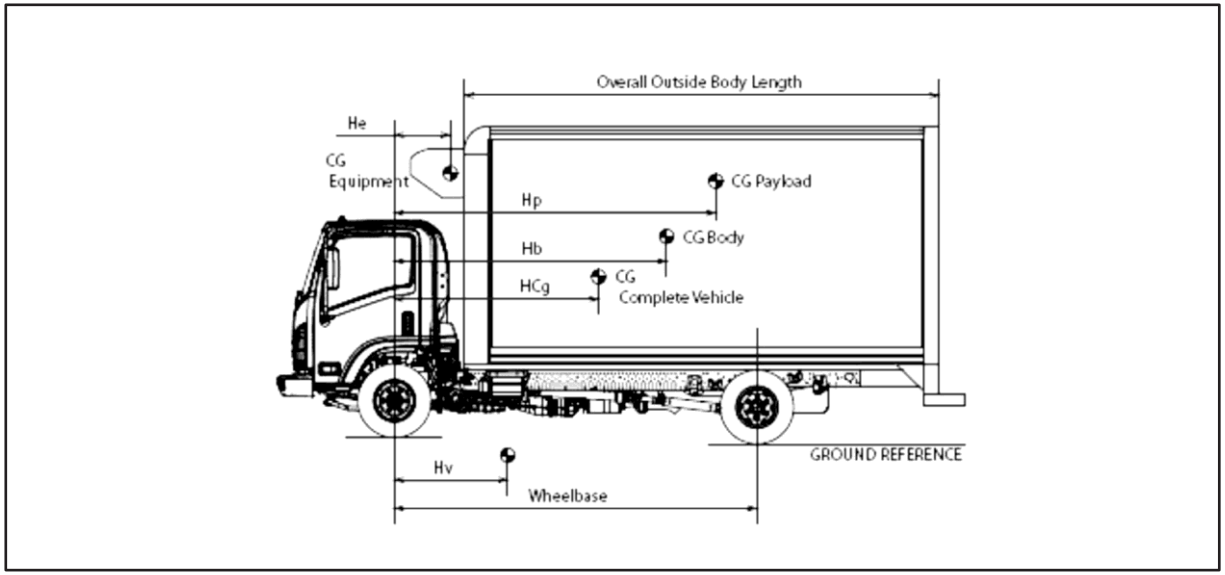


Figure 21

Example: LCF Diesel 12,000 GVWR automatic transmission, 132” WB, 14’ body length, full payload of boxes stacked and distributed evenly throughout the flooring, 1,000 lb. reefer unit attached in front of body.

Wv	=	5,291 lbs.	(from vehicle specifications)
Wb	=	2,100 lbs.	(from body manufacturer)
Wp	=	3,609 lbs.	(GVWR – (Wv + Wb + We))
We	=	1,000 lbs.	(from equipment manufacturer)
Hv	=	42.4 in.	(from Body Builder’s Manual, LCF Section)
Hb	=	107.5 in.	(from body manufacturer)
Hp*	=	107.5 in.	(1/2 of payload length + distance from front axle to front of body)
He	=	17.5 in.	(from equipment manufacturer)
Mv	=	5,291 x 42.4 = 224,338 lbs.-in.	(from 8.1)
Mb	=	2,100 x 107.5 = 225,750 lbs.-in.	(from 8.2)
Mp	=	3,609 x 107.5 = 387,967 lbs.-in.	(from 8.3)
Me	=	1,000 x 17.5 = 17,500 lbs.-in.	(from 8.4)

$$HCg = \frac{(224{,}338 + 225{,}750 + 387{,}967 + 17{,}500)}{(5{,}291 + 2{,}100 + 3{,}609 + 1{,}000)}$$

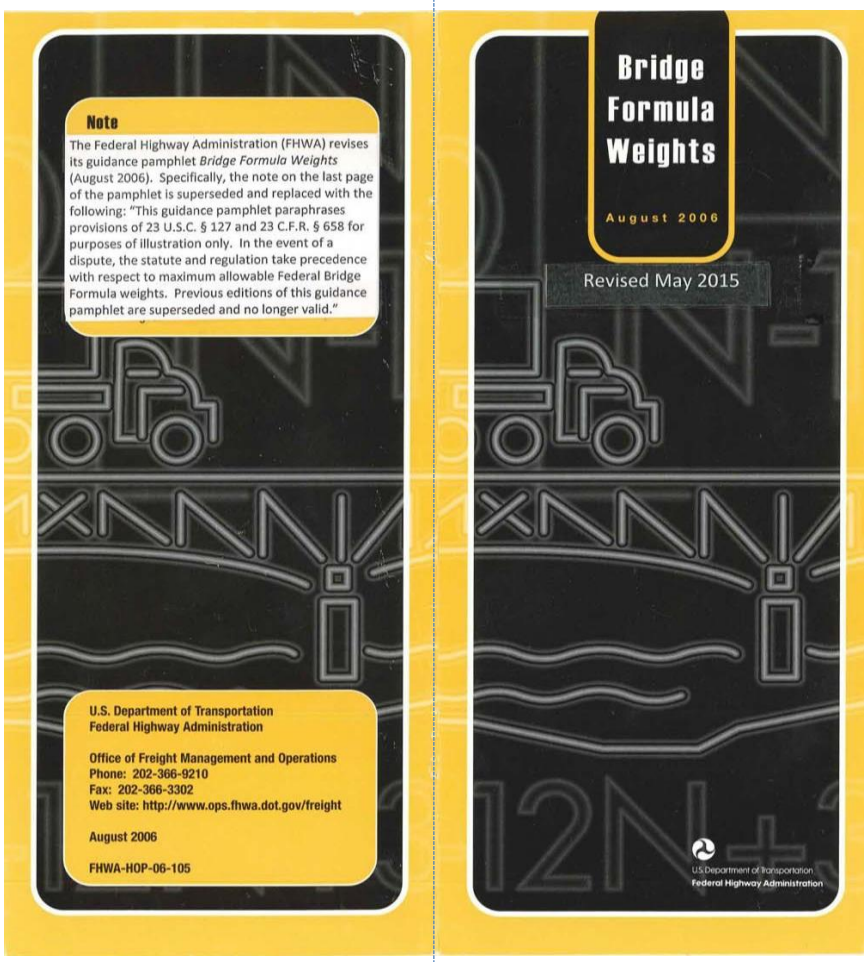
$$HCg = \frac{(855{,}555)}{(12{,}000)} = 71.3 \text{ inches}$$

71.3 < 132 inches (132 inches is the wheelbase dimension)

Since HCg for this truck is not greater than the WB or negative (–) (denotes HCg forward of front axle centerline), it exists between the centerlines of the front and rear axles.

NOTE: Hp and Hb dimensions are the same in this example because CG of body and payload happen to be at the same point.

2025 Chevrolet Low Cab Forward



Note

The Federal Highway Administration (FHWA) revises its guidance pamphlet *Bridge Formula Weights* (August 2006). Specifically, the note on the last page of the pamphlet is superseded and replaced with the following: "This guidance pamphlet paraphrases provisions of 23 U.S.C. § 127 and 23 C.F.R. § 658 for purposes of illustration only. In the event of a dispute, the statute and regulation take precedence with respect to maximum allowable Federal Bridge Formula weights. Previous editions of this guidance pamphlet are superseded and no longer valid."

U.S. Department of Transportation
Federal Highway Administration

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August 2006

FHWA-HOP-06-105

Bridge Formula Weights

August 2006

Revised May 2015

U.S. Department of Transportation
Federal Highway Administration

Bridge Formula Weights

With a few exceptions noted in this pamphlet, the Bridge Formula establishes the maximum weight any set of axles on a motor vehicle may carry on the Interstate highway system. This pamphlet describes the Bridge Formula, why it was established, and how it is used.

What Is It?

Congress enacted the Bridge Formula in 1975 to limit the weight-to-length ratio of a vehicle crossing a bridge. This is accomplished either by spreading weight over additional axles or by increasing the distance between axles.

Compliance with Bridge Formula weight limits is determined by using the following formula:

$$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$$

W = the overall gross weight on any group of two or more consecutive axles to the nearest 500 pounds.

L = the distance in feet between the outer axles of any group of two or more consecutive axles.

N = the number of axles in the group under consideration.

In addition to Bridge Formula weight limits, Federal law states that single axles are limited to 20,000 pounds, and axles closer than 96 inches apart (tandem axles) are limited to 34,000 pounds. Gross vehicle weight is limited to 80,000 pounds (23 U.S.C. 127).

Is the Formula Necessary?

Bridges on the Interstate System highways are designed to support a wide variety of vehicles and their expected loads. As trucks grew heavier in the 1950s and 1960s, something had to

The truck shown in Figure 8 satisfies the single-axle weight limit (12,000 pounds are less than 20,000 pounds), the tandem-axle limit (30,000 pounds are less than 34,000 pounds) and the gross-weight limit (57,000 pounds are less than 80,000 pounds). With these restrictions satisfied, a check is done for Bridge Formula requirements, axles 1 through 4.

Actual Weight= 12,000 + 15,000 + 15,000 + 15,000 = 57,000 pounds.

Maximum weight (W) = 57,500 pounds (Bridge Table for "L" of 23 feet and "N" of 4 axles).

Since axles 1 through 4 are satisfactory, check axles 2 through 4:

Actual weight = 15,000 + 15,000 + 15,000 = 45,000 pounds.

Maximum weight (W) = 42,500 pounds (Bridge Table for "L" of 9 feet and "N" of 3 axles).

This is a violation because the actual weight exceeds the weight allowed by the Bridge Formula. The load must either be reduced, axles added, or spacing increased to comply with the Bridge Formula.

Quality Assurance Statement

The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

Exception to Formula and Bridge Table

In addition to the grandfather rights noted on page 3, Federal law (23 U.S.C. 127) includes one other exception to the Bridge Formula and the Bridge Table—two consecutive sets of tandem axles may carry 34,000 pounds each if the overall distance between the first and last axles of these tandems is 36 feet or more. For example, a five-axle tractor-semitrailer combination may carry 34,000 pounds both on the tractor tandem (axles 2 and 3) and the trailer tandem (axles 4 and 5), provided axles 2 and 5 are spaced at least 36 feet apart. Without this exception, the Bridge Formula would allow an actual weight of only 66,000 to 67,500 pounds on tandems spaced 36 to 38 feet apart.

Bridge Formula Application to Single-Unit Trucks

The procedure described above could be used to check any axle combinations, but several closely spaced axles usually produce the most critical situation.

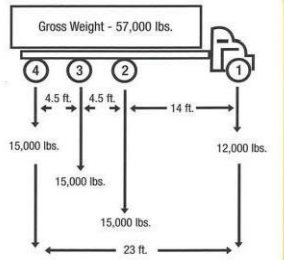


Figure 8

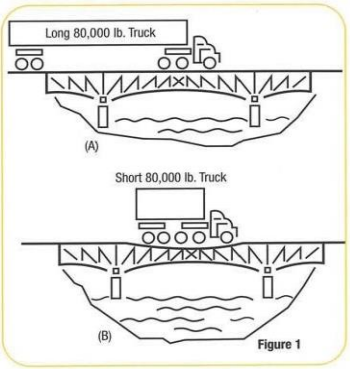


Figure 1

be done to protect bridges. The solution was to link allowable weights to the number and spacing of axles.

Axle spacing is as important as axle weight in designing bridges. In Figure 1A, the stress on bridge members as a longer truck rolls across is much less than that caused by a short vehicle as shown in Figure 1B, even though both trucks have the same total weight and individual axle weights. The weight of the longer vehicle is spread out, while the weight of the shorter vehicle is concentrated on a smaller area.

How Is the Formula Used?

The weight on various axle configurations must be checked to determine compliance with the Bridge Formula. Three definitions are needed to use the Bridge Formula correctly.

Gross Weight—the weight of a vehicle or vehicle combination and any load thereon. The Federal gross weight limit on the Interstate System is 80,000 pounds unless the Bridge Formula dictates a lower weight limit.

Single-Axle Weight—The total weight on one or more axles whose centers are spaced not more 40 inches apart. The Federal single-axle weight limit on the Interstate System is 20,000 pounds.

Tandem-Axle Weight—The total weight on two or more consecutive axles whose centers are spaced more than 40 inches apart but not more than 96 inches apart. The Federal tandem-axle weight limit on the Interstate System is 34,000 pounds.

Interstate System weight limits in some States may be higher than the figures noted above due to "grandfather" rights. When the Interstate System axle and gross weight limits were first adopted in 1956, and amended in 1975, States were allowed to keep or "grandfather" weight limits that were higher.

Bridge Formula calculations yield a series of weights (Bridge Table, pages 5-6). It is important to note that the single-axle weight limit replaces the Bridge Formula weight limit on axles not more than 40 inches apart, and the tandem-axle weight limit replaces the Bridge Formula weight limit for axles over 40 but not more than 96 inches apart. At 97 inches apart, for example, two axles may carry 38,000 pounds (Figure 2A), and three axles may carry 42,000 pounds, as shown in Figure 2B.

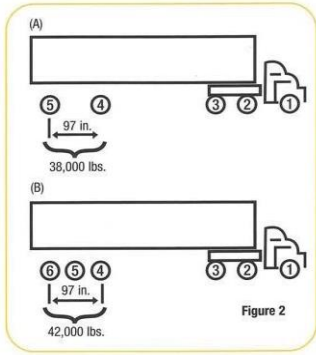


Figure 2

3

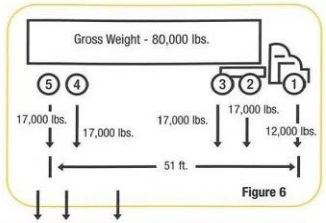


Figure 6

Now check axles 1 through 5 (Figure 6)

Actual weight = 12,000 + 17,000 + 17,000 + 17,000 + 17,000 = 80,000 pounds.

Maximum weight (W) = 80,000 pounds (Bridge Table for "L" of 51 feet and "N" of 5 axles).

Therefore, this axle spacing is satisfactory.

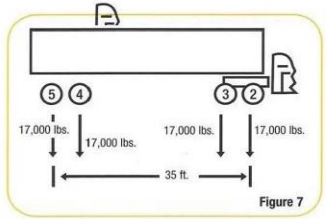


Figure 7

Now check axles 2 through 5 (Figure 7)

Actual weight = 17,000 + 17,000 + 17,000 + 17,000 = 68,000 pounds.

Maximum weight (W) = 65,500 pounds (Bridge Table for "L" of 35 feet and "N" of 4 axles).

This is a violation because the actual weight exceeds the weight allowed by the Bridge Formula. To correct the situation, some load must be removed from the vehicle or the axle spacing (35 feet) must be increased.

8

Before checking for compliance with the Bridge Formula, a vehicle's single-axle, tandem-axle, and gross weight should be checked. Here the single axle (number 1) does not exceed 20,000 pounds, tandems 2-3 and 4-5 do not exceed 34,000 pounds each, and the gross weight does not exceed 80,000 pounds. Thus, these preliminary requirements are satisfied. The first Bridge Formula combination is checked as follows:

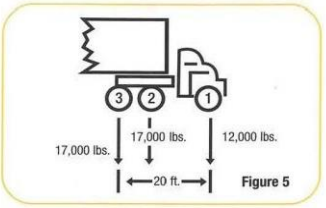


Figure 5

Check axles 1 through 3 (Figure 5)

Actual weight = 12,000 + 17,000 + 17,000 = 46,000 pounds.

N = 3 axles

L = 20 feet

$$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$$

$$W = 500 \left[\frac{(20 \times 3)}{(3 - 1)} + (12 \times 3) + 36 \right] = 51{,}000 \text{ lbs.}$$

Maximum weight (W) = 51,000 pounds, which is more than the actual weight of 46,000 pounds. Thus, the Bridge Formula requirement is satisfied.

Example From the Bridge Table (pages 5 & 6)
The same number (51,000 pounds) could have been obtained from the Bridge Table by reading down the left side to L = 20 and across to the right where N = 3.

Federal law states that any two or more consecutive axles may not exceed the weight computed by the Bridge Formula even though single axles, tandem axles, and gross weight are within legal limits. As a result, the axle group that includes the entire truck—sometimes called the "outer bridge" group—must comply with the Bridge Formula. However, interior combinations of axles, such as the "tractor bridge" (axles 1, 2, and 3) and "trailer bridge" (axles 2, 3, 4, and 5), must also comply with weights computed by the Bridge Formula (Figure 3).

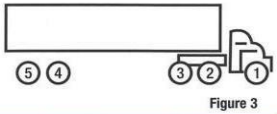


Figure 3

Figure 3 shows the most common vehicle checked for compliance with weight limit requirements. Although the Bridge Formula applies to each combination of two or more axles, experience shows that axle combinations 1 through 3, 1 through 5, and 2 through 5 are critical and must be checked. If these combinations are found to be satisfactory, then all of the others on this type of vehicle normally will be satisfactory.

The vehicle with weights and axle dimensions shown in Figure 4 is used to illustrate a Bridge Formula check.

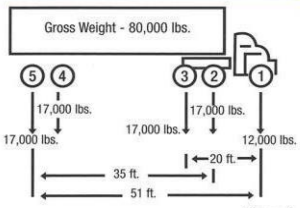


Figure 4

2025 Chevrolet Low Cab Forward

Permissible Gross Loads for Vehicles in Regular Operation[1]

Based on weight formula $W = 500\left[\frac{LN}{N-1} + 12N + 36\right]$

Distance in feet (L) between the extremes of any group of 2 or more consecutive axles		Maximum load in pounds carried on any group of 2 or more consecutive axles[2]							
L	N=	2 AXLES	3 AXLES	4 AXLES	5 AXLES	6 AXLES	7 AXLES	8 AXLES	9 AXLES
Tandem Axle Weight (see pages 3 & 4) 4		34,000	.....	.....	.....	.....	.....	.....	.....
5		34,000	.....	.....	.....	.....	.....	.....	.....
6		34,000	.....	.....	.....	.....	.....	.....	.....
7		34,000	.....	.....	.....	.....	.....	.....	.....
8		34,000	34,000	.....	.....	.....	.....	.....	.....
More than 8/less than 9		38,000	42,000	.....	.....	.....	.....	.....	.....
9		39,000	42,500	.....	.....	.....	.....	.....	.....
10		40,000	43,500	.....	.....	.....	.....	.....	.....
11		.....	44,000	.....	.....	.....	.....	.....	.....
12		.....	45,000	50,000	.....	.....	.....	.....	.....
13		.....	45,500	50,500	.....	.....	.....	.....	.....
14		.....	46,500	51,500	.....	.....	.....	.....	.....
15		.....	47,000	52,000	.....	.....	.....	.....	.....
16		.....	48,000*	52,500	58,000	.....	.....	.....	.....
17		.....	48,500	53,500	58,500	.....	.....	.....	.....
18		.....	49,500	54,000	59,000	.....	.....	.....	.....
19	Example	.....	50,000	54,500	60,000	.....	.....	.....	.....
20	(see page 7)	.....	51,000	55,500	60,500	66,000	.....	.....	.....
21		.....	51,500	56,000	61,000	66,500	.....	.....	.....
22		.....	52,500	56,500	61,500	67,000	.....	.....	.....
23		.....	53,000	57,500	62,500	68,000	.....	.....	.....
24		.....	54,000	58,000	63,000	68,500	74,000	.....	.....
25		.....	54,500	58,500	63,500	69,000	74,500	.....	.....
26		.....	55,500	59,500	64,000	69,500	75,000	.....	.....
27		.....	56,000	60,000	65,000	70,000	75,500	.....	.....
28		.....	57,000	60,500	65,500	71,000	76,500	82,000	.....
29		.....	57,500	61,500	66,000	71,500	77,000	82,500	.....
30		.....	58,500	62,000	66,500	72,000	77,500	83,000	.....
31		.....	59,000	62,500	67,500	72,500	78,000	83,500	.....
32		.....	60,000	63,500	68,000	73,000	78,500	84,500	90,000
33		.....	.....	64,000	68,500	74,000	79,000	85,000	90,500
34		.....	.....	64,500	69,000	74,500	80,000	85,500	91,000
35		.....	.....	65,500	70,000	75,000	80,500	86,000	91,500
36		.....	Exception	66,000	70,500	75,500	81,000	86,500	92,000
37		.....	(see page 9)	66,500	71,000	76,000	81,500	87,000	93,000
38		.....	.....	67,500	71,500	77,000	82,000	87,500	93,500
39		.....	.....	68,000	72,000	77,500	82,500	88,500	94,000
40		.....	.....	68,500	73,000	78,000	83,500	89,000	94,500
41		.....	.....	69,500	73,500	78,500	84,000	89,500	95,000
42		.....	.....	70,000	74,000	79,000	84,500	90,000	95,500
43		.....	.....	70,500	75,000	80,000	85,000	90,500	96,000
44		.....	.....	71,500	75,500	80,500	85,500	91,000	96,500
45		.....	.....	72,000	76,000	81,000	86,000	91,500	97,500
46		.....	.....	72,500	76,500	81,500	87,000	92,500	98,000
47		.....	.....	73,500	77,500	82,000	87,500	93,000	98,500
48		.....	.....	74,000	78,000	83,000	88,000	93,500	99,000
49		.....	.....	74,500	78,500	83,500	88,500	94,000	99,500
50		.....	.....	75,500	79,000	84,000	89,000	94,500	100,000
51		.....	.....	76,000	80,000	84,500	89,500	95,000	100,500
52		.....	.....	76,500	80,500	85,000	90,500	95,500	101,000
53		.....	.....	77,500	81,000	86,000	91,000	96,500	101,500
54		.....	.....	78,000	81,500	86,500	91,500	97,000	102,000
55		.....	.....	78,500	82,500	87,000	92,000	97,500	102,500
56		.....	Interstate Gross	79,500	83,000	87,500	92,500	98,000	103,000
57		.....	Weight Limit	80,000	83,500	88,000	93,000	98,500	104,000
58		.....	(see page 2)	.....	84,000	89,000	94,000	99,000	104,500
59		.....	.....	.....	85,000	89,500	94,500	99,500	105,000
60		.....	.....	.....	85,500	90,000	95,000	100,500	105,500

[1]The values in this table reflect FHWA's policy of rounding down when calculated weights fall exactly halfway between 500-pound increments. Because the Bridge Formula is designed to protect highway infrastructure, FHWA determined that this conservative policy is consistent with the statutory mandate.

Fn. 2 The Federal Highway Administration (FHWA) revises its guidance pamphlet *Bridge Formula Weights* (August 2006). Specifically, footnote 2 on page 6 of the guidance is superseded and replaced with the following: "Pursuant to 23 CFR 650.3 13, all bridges must be inspected, rated to safe load-carrying capacity, and if required, posted or restricted with respect to the maximum allowable weight."

2025 Chevrolet Low Cab Forward

Commodity and Material Weights Approximate Weights of Commodities and Materials

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Acetone		— — —	50	6.6 / gallon
Alcohol,	Commercial	— — —	51	6.8 / gallon
	Proof spirits	— — —	57	7.6 / gallon
Alfalfa seed		bushel	— —	60 / bushel
Aluminum,	Pure (cast)	— — —	165	4,450 / cu. yard
Apples,	Fresh	basket-bushel	— —	48 / bushel
	Western, box	11.5" x 12" x 20"	— —	50 / box
	New England, box	11.25" x 14.5" x 17.5"	— —	56 / box
	Standard barrel	17" head, 28.5" stave	— —	160 / barrel
	Dried	bushel	— —	24 / bushel
Apricots,	Fresh	bushel	— —	48 / bushel
	Western, box	5.5" x 12" x 20"	— —	23 / box
Artichokes,	Box	10" x 11.5" x 22"	— —	44 / box
Asbestos		— — —	153	4,130 / cu. yard
Asparagus,	crate, Loose	11.5" high x 9.75" top	— —	38 / crate
	Bunches	11" bottom x 19.38" long	— —	31 / crate
Avocados,	Box	5.75" x 11.25" x 17.5"	— —	16 / box
Bananas,	Single stem	bunch	— —	45-65 / bunch
Barley		bushel	— —	48 / bushel
Barytes,	Mineral	— — —	280	7,560 / cu. yard
Basalt,	Rock	— — —	185	5,000 / cu. yard
Beans, dry,	Lima	bushel	— —	56 / bushel
	White	bushel	— —	60 / bushel
	Castor	bushel	— —	46 / bushel
Beans, fresh,	Lima	bushel	— —	39 / bushel
	String	bushel	— —	36 / bushel
		hamper, 5 peck	— —	45 / hamper

***Note: Beer cases vary as to size and shape. Suggested checking with local source.**

Figure 1

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Beef,	Slack barrel	21" x 30" stave (200 lbs. net)	— —	254 / barrel
Beer,	Wood barrel	.5 barrel (16 gal.)	— —	205 / barrel
	Wood barrel	.25 barrel (8 gal.)	— —	105 / barrel
	Steel barrel	.5 barrel (16 gal.)	— —	190 / barrel
	Steel barrel	.25 barrel (8 gal.)	— —	95 / barrel
	Dutchman	.13 barrel (4 gal.)	— —	51 / barrel
Case carton,*	Regular bottles	17.25" x 11.5" x 9.88"	— —	45 / case
24, 12 oz.	Steinie bottles	18.38" x 12.13" x 7.38"	— —	40 / case
	Tin cans	16.13" x 11" x 5.13"	— —	28 / case
Wooden case,*	Regular bottles	21" x 13.5" x 10"	— —	35 / case
24, 12 oz.	Steinie bottles	22" x 13.75" x 7.5"	— —	46 / case
Beets		bushel	— —	50-60 / bushel
	Small crate	9.75" x 13.75" x 24"	— —	50 / crate
	Western crate	14" x 19" x 24.5"	— —	95 / crate
Berries, crate,	24 pint	9.75" x 9.97" x 20"	— —	25 / crate
	24 quart	11.75" x 11.75" x 24"	— —	48 / crate
	32 quart	15.5" x 11.75" x 24"	— —	63 / crate
Bluegrass seed		bushel	— —	44 / bushel
Bluestone		— — —	120	3,240 / cu. yard
Bone		— — —	115	3,110 / cu. yard
Borax		— — —	110	2,970 / cu. yard
Bran		bushel	— —	20 / bushel
Brick,	Soft	2.25" x 4" x 8.25"	— —	4,320 / thousand
	Common	2.25" x 4" x 8.25"	— —	5,400 / thousand
	Hard	2.25" x 4.25" x 8.5"	— —	6,480 / thousand
	Pressed	2.38" x 4" x 8.38"	— —	7,500 / thousand
	Paving	2.25" x 4" x 8.5"	— —	6,750 / thousand
	Paving block	3.5" x 4" x 8.5"	— —	8,750 / thousand
	Fire	2.5" x 4.5" x 9"	— —	7,000 / thousand

Figure 2

2025 Chevrolet Low Cab Forward

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Broccoli,	Bushel crate	12.75" x 12.75" x 17"	— —	30 / bushel
Brussels sprouts,	Crate	7.75" x 10.5" x 21.38"	— —	26 / crate
Buckwheat		bushel	— —	49 / bushel
Butter, tub,	Small	15" dia. x 5.75"	— —	25 / tub
Standard		15" dia. x 15"	— —	70 / tub
Butter, case,	30 – 1-lb. bricks	10.75" x 8.75" x 10.5"	— —	32 / case
	9-lb. pail	pail	— —	10 / pail
Cabbage		bushel	— —	38 / bushel
	Hamper	1.5 bushel	— —	58 / hamper
	Crate	12.75" x 18.5" x 19"	— —	60 / crate
	Western crate	14" x 19" x 24.5"	— —	85 / crate
	Barrel crate	12.75" x 18.75" x 37.38"	— —	110 / crate
Calf,	Live (average)	per head	— —	140-160 / head
Cantaloupe, crate,	Pony	11.75" x 11.75" x 23.5"	— —	58 / crate
	Standard	12.75" x 12.75" x 23.5"	— —	68 / crate
	Jumbo	13.75" x 13.75" x 23.5"	— —	78 / crate
	Pony flat	4.75" x 12.75" x 23.5"	— —	26 / crate
	Standard flat	5.25" x 14.25" x 23.5"	— —	28 / crate
	Jumbo flat	5.75" x 15.25" x 23.5"	— —	32 / crate
	Honeydew (Casaba)	6.38" x 15.13" x 23.5"	— —	35 / crate
Carbolic acid		— — —	60	8.0 / gallon
Carrots,	Topped	bushel	— —	55 / bushel
	With tops	bushel	— —	40 / bushel
	Crate	11.75" x 14.13" x 24"	— —	60 / crate
Castor oil		— — —	61	8.1 / gallon
Cauliflower		bushel	— —	30 / bushel
	Crate	9.38" x 19" x 24"	— —	50 / crate
Cedar*	(lumber)	— — —	30	2,500 / M. Bd. ft.
Celery,	Standard crate	11.63" x 22" x 22.63"	— —	70 / crate
	Half crate	10.75" x 13" x 20.38"	— —	35 / crate
	Northern crate	16.5" x 21.25" x 22"	— —	85 / crate

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 3

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Cement,	Block	8" x 8" x 16"	— —	42 / each
	Block	8" x 12" x 16"	— —	58 / each
	Portland	sack	— —	94 / sack
	Portland	barrel (4 sacks per)	— —	376 / barrel
Chalk		— — —	137	3,700 / cu. yard
Charcoal,	Oak	— — —	33	890 / cu. yard
	Pine	— — —	23	620 / cu. yard
Cheese,	Small box	15" dia. x 5.25"	— —	25 / box
	Medium box	15" dia. x 7.5"	— —	35 / box
	Large box	15" dia. x 15"	— —	70 / box
Cherries,	Unstemmed	bushel	— —	56 / bushel
	Stemmed	bushel	— —	64 / bushel
	Lug box	5.63" x 11.88" x 19.75"	— —	17 / box
Chestnut*	(lumber)	— — —	37	3,080 / M. Bd. ft.
Chestnuts		bushel	— —	50 / bushel
Chickens,	Live, broilers (20 avg.)	standard crate	— —	58 / crate
	Fowl (12 avg.)	standard crate	— —	78 / crate
	Standard crate,	empty 24" x 35" x 13"	— —	18 / crate
Cinder blocks		8" x 8" x 16"	— —	35 / each
		8" x 12" x 16"	— —	45 / each
Cinders		— — —	50	1,350 / cu. yard
Clay,	Dry lumps	— — —	85	2,300 / cu. yard
	Wet lumps	— — —	110	2,970 / cu. yard
	Wet packed	— — —	135	3,650 / cu. yard
	Fire	— — —	125	3,375 / cu. yard
Cork		— — —	15	405 / cu. yard
Corn,	Ear	bushel	— —	35 / bushel
	Shelled	bushel	— —	56 / bushel
	Sweet corn (green)	bushel	— —	43 / bushel
	Crate	12.88" x 12.88" x 24"	— —	60 / crate
Corn meal		bushel	— —	44 / bushel

Figure 4

2025 Chevrolet Low Cab Forward

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Corn oil		— — —	58	7.8 / gallon
Corn syrup		— — —	86	11.5 / gallon
Cotton,	Gin bale	30" x 48" x 54"	— —	515 / bale
	Standard bale	24" x 28" x 56"	— —	515 / bale
	Comp. bale	20" x 24" x 56"	— —	515 / bale
Cotton seed		bushel	— —	32 / bushel
Cottonseed oil		— — —	58	7.8 / gallon
Cottonwood*	(lumber)	— — —	37	3,080 / M. Bd. ft.
Cow,	Live-Feeder (average)	per head	— —	600 / head
	Butcher (average)	per head	— —	800 / head
	Butcher steer (average)	per head	— —	1100 / head
Cranberries,	1/4 barrel box	9.5" x 11" x 14"	— —	28 / box
	1/2 barrel box	12.25" x 14.75" x 22"	— —	60 / box
Cream		— — —	64	8.5 / gallon
Creosote		— — —	68	9.2 / gallon
Crude oil		— — —	56	7.5 / gallon
Cucumbers		bushel	— —	55 / bushel
	Crate	9.75" x 13.75" x 24"	— —	75 / crate
	Case	5" x 13.25" x 19"	— —	26 / case
Earth,	Loose, dry loam	— — —	76	2,050 / cu. yard
	Packed	— — —	95	2,565 / cu. yard
	Wet	— — —	125	3,375 / cu. yard
Eggplant,	Hamper	bushel	— —	40 / bushel
	Crate	14" x 11.75" x 24"	— —	54 / crate
Eggs,	30 dozen crate	12" x 12" x 26"	— —	55 / crate
Elm,*	Soft	— — —	38	3,170 / M. Bd. ft.
	Rock	— — —	45	3,750 / M. Bd. ft.
Fertilizer,	Commercial	burlap bag	— —	100-200 / bag
Fir,*	Douglas	— — —	32	2,670 / M. Bd. ft.
	Eastern	— — —	25	2,080 / M. Bd. ft.

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 5

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Fish, fresh,	Barrel	19" head, 29" stave	— —	300 / barrel
	1/2 Barrel	18.5" head, 23.5" stave	— —	160 / 1/2 barrel
Flour,	Barrel	19.13" head, 30" stave	— —	215 / barrel
Fuel oil,	Furnace grade	— — —	56	7.5 / gallon
	Diesel engine	— — —	52	7.0 / gallon
Furniture,	Household	— — —	7	1,915 / cu. yard
Garbage,	Dry, paper wrapped	— — —	15-30	405-810 / cu. yard
	Wet	— — —	50	1,240 / cu. yard
Gasoline		— — —	45	6.0 / gallon
Glass,	Common window	— — —	— —	162 / cu. foot
	Plate or crown	— — —	— —	161 / cu. foot
	1/4" plate	— — —	— —	3.3 / sq. foot
Glue		— — —	80	2,160 / cu. yard
Glycerine		— — —	79	10.5 / gallon
Grapefruit,	Western box	11.5" x 11.5" x 24"	— —	68 / box
	Southern box	12.75" x 12.75" x 27"	— —	90 / box
Grapes,	Basket	bushel	— —	48 / box
	Lug box	5.63" x 16.38" x 17.5"	— —	30 / box
	Western keg	15.5" dia. x 14"	— —	45 / keg
	Basket	12 quart	— —	18 / basket
Gravel,	Dry	— — —	95	2,565 / cu. yard
	Wet	— — —	125	3,375 / cu. yard
Greens		bushel	— —	25 / bushel
Groceries,	Misc. assorted	— — —	30	810 / cu. yard
Hay,	Bale	26" x 30" x 46"	— —	210 / bale
	Bale	17" x 22" x 43"	— —	115 / bale
	Bale	14" x 16" x 43"	— —	85 / bale
Hog,	Live (average)	per head	— —	225-250 / head
Honey		— — —	90	12.0 / gallon
Horse,	Live (average)	per head	— —	1,200-1,500 / head

Figure 6

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Horseradish roots		bushel	— —	35 / bushel
Ice		— — —	57	1,540 / cu. yard
Ice (mfg.),	Block	11" x 22" x 32"	— —	250 / block
	Block	14" x 14" x 40"	— —	255 / block
	Block	11" x 22" x 56"	— —	440 / block
Ice Cream,	2.5 gallon can, Full	9" dia. x 11"	— —	18 / can
	Empty	— — —	— —	6 / can
	5 gallon can, Full	9" dia. x 21"	— —	35 / can
	Empty	— — —	— —	11 / can
Kale		bushel	— —	25 / bushel
Kerosene		— — —	50	6.6 / gallon
Lamb,	Live (average)	per head	— —	75-85 / head
Lard,	Barrel	18" head, 30" stave	— —	425 / barrel
Lath,	Standard length 29"	Packed in bundles of 50 Average bundle, dia. 9"	— —	25 / bundle
Leather,	Dry	— — —	55	1,485 / cu. yard
	Wet	— — —	65	1,755 / cu. yard
Lemons,	Western box	10" x 13" x 25"	— —	80 / box
	Southern box	12.75" x 12.75" x 27"	— —	90 / box
Lentils		bushel	— —	60 / bushel
Lettuce,	Hamper	bushel	— —	25 / bushel
	Hamper	1.5 bushel	— —	38 / hamper
	Basket	8.5" x 11.75" x 21.38"	— —	17 / basket
	Crate	18.75" x 17.5" x 24.5"	— —	75 / crate
	1/2 crate	9.5" x 13.5" x 24.5"	— —	40 / 1/2 crate
Lime,	Hydrated	bushel	— —	30 / bushel
	Barrel (small)	16.5" head, 27.5" stave	62	210 / barrel
	Barrel (large)		62	320 / barrel
Limes,	Western box	10" x 13" x 25"	— —	80 / box
	Southern box	12.75" x 12.75" x 27"	— —	90 / box

Figure 7

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Linseed oil		— — —	59	7.9 / gallon
Lubricating oil		— — —	52	7.0 / gallon
Malt,	Barley	bushel	— —	28 / bushel
	Rye	bushel	— —	32 / bushel
	Brewer's grain	bushel	— —	40 / bushel
Maple syrup		gallon	82	11.0 / gallon
Maple,*	Hard (lumber)	— — —	44	3,670 / M. Bd. ft.
	Soft	— — —	34	2,830 / M. Bd. ft.
Meal-corn		bushel	— —	44 / bushel
Milk,	Bulk	— — —	64	8.6 / gallon
	5 gallon can	10.25" dia. x 19"	— —	62 / can
	10 gallon can	13" dia. x 23"	— —	115 / can
	Crate, 20.5 pt. bottles	8.5" x 12.75" x 16.75"	— —	33 / crate
	20 pt. bottles	8.5" x 12.75" x 16.75"	— —	54 / crate
Millet		bushel	— —	50 / bushel
Molasses		— — —	90	12.0 / gallon
	Barrel	20.25" head, 34" stave	— —	675 / barrel
Mortar,	Lime	— — —	110	2,970 / cu. yard
Mud,	Flowing	— — —	106	2,860 / cu. yard
	Packed	— — —	125	3,375 / cu. yard
Muriatic acid,	40%	— — —	40	10.0 / gallon
Naptha,	Petroleum	— — —	42	5.6 / gallon
Nitric acid,	91%	— — —	94	12.5 / gallon
Oak-red,*	Black	— — —	42	3,500 / M. Bd. ft.
	White	— — —	48	4,080 / M. Bd. ft.
Oats		bushel	— —	32 / bushel
Okra,	Hamper	1/2 bushel	— —	18 / hamper
	Hamper	bushel	— —	34 / bushel
Oleomargarine,	(mfg.-tub)	21" head, 34" stave	— —	70 / tub
	Cases	— — —	— —	15-65 / case

Figure 8

2025 Chevrolet Low Cab Forward

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Olive oil		— — —	58	7.7 / gallon
Onions, dry,	Basket	bushel	— —	55 / bushel
	Bag	17" x 32"	— —	50 / bag
	Crate	20.5" x 11.5" x 10.5"	— —	58 / crate
	Green (with tops)	bushel	— —	32 / bushel
Oranges,	Western box	11.5" x 11.5" x 24"	— —	80 / box
	Southern box	12.75" x 12.75" x 27"	— —	90 / box
	Bushel box	10.75" x 10.75" x 23.5"	— —	65 / box
Oysters (shucked or meats)				
	Crate with 5.1 gal. cans	18" x 12" x 24"	(11.5 lbs. per gal.)	67 / crate
	With shells (bags)	bushel	— —	75 / bushel
Paint,	Lead and oil	— — —	127	17 / gallon
Paper,	Average solid	— — —	58	1,565 / cu. yard
	Newspaper rolls	34.25" x 35" dia.	— —	500 / roll
		51.5" x 35" dia.	— —	1,000 / roll
		64.25" x 35" dia.	— —	1,300 / roll
Paraffin		— — —	56	1,510 / cu. yard
Parsley,	Bushel crate	12.75" x 12.75" x 17"	— —	30 / crate
Parsnips		bushel	— —	50 / bushel
Peaches,	Basket	bushel	— —	48 / bushel
	1/2 bushel	— — —	— —	25 / basket
	Crate	10.5" x 11.25" x 24"	— —	50 / crate
	Western box	5.5" x 12.25" x 19.75"	— —	22 / box
Peanuts,	Unshelled	bushel	— —	22 / bushel
	Bag	— — —	— —	100 / bag
Peanut oil		— — —	57	7.6 / gallon
Pears,	Basket	bushel	— —	50 / bushel
	Western box	9.63" x 12.13" x 19.75"	— —	51 / box
Peas,	Dry	bushel	— —	60 / bushel
	Fresh hamper	bushel	— —	35 / hamper
	Hamper	40 quarts	— —	45 / hamper

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 9

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Pecans,	Large bag	— — —	— —	100 / bag
	Small bag	— — —	— —	50 / bag
Peppers,	Basket	bushel	— —	25 / basket
	Crate	14.13" x 11.75" x 24"	— —	45 / crate
Petroleum		— — —	56	7.5 / gallon
Phosphate rock		— — —	200	5,400 / cu. yard
Pine,*	Long leaf	— — —	44	3,670 / M. Bd. ft.
	North Carolina	— — —	36	3,000 / M. Bd. ft.
	Oregon	— — —	32	2,670 / M. Bd. ft.
	Red	— — —	30	2,500 / M. Bd. ft.
	White	— — —	26	2,170 / M. Bd. ft.
	Yellow, long leaf	— — —	44	3,670 / M. Bd. ft.
	Short leaf	— — —	38	3,170 / M. Bd. ft.
Pineapples,	Crate	11" x 12.5" x 36"	— —	85 / crate
Pitch		— — —	70	1,900 / cu. yard
Plums,	Basket	bushel	— —	56 / bushel
	Western box	5.63" x 16.38" x 17.5"	— —	25 / box
Pomegranates,	Box	6.5" x 12" x 24.63"	— —	30 / box
Popcorn,	Ear	bushel	— —	70 / bushel
	Shelled	bushel	— —	56 / bushel
Poplar*		— — —	27	2,250 / M. Bd. ft.
Porcelain		— — —	150	4,050 / cu. yard
Pork (dressed),	Barrel (200 lbs. net)	18" head, 29" stave	— —	240 / barrel
Potatoes,	Sweet	bushel	— —	55 / bushel
	White or Irish	bushel	— —	60 / bushel
	Bag	1.67 bushel	— —	102 / bag
	Barrel	17.13" head, 28.5" stave	— —	185 / barrel
Prunes,	Box	5.63" x 16.38" x 19.75"	— —	25 / box
	Box	5.63" x 11.88" x 19.75"	— —	22 / box
Quinces		bushel	— —	50 / bushel

Figure 10

2025 Chevrolet Low Cab Forward

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Radishes,	Basket	bushel	— —	34 / bushel
	Crate	9.75" x 13.75" x 24"	— —	40 / crate
Redwood*		— — —	30	2,500 / M. Bd. ft.
Resin		— — —	68	1,835 / cu. yard
Rhubarb (pie plant)		bushel	— —	50 / bushel
	Box	5.25" x 11.5" x 22"	— —	24 / box
Rice,		Unhulled bushel	— —	43 / bushel
Rock,	Crushed (average)	— — —	100	2,700 / cu. yard
Romaine,	Crate	13.88" x 18.88" x 24.5"	— —	64 / crate
	Crate	12.25" x 13" x 15.25"	— —	27 / crate
Rubber goods		— — —	94	2,540 / cu. yard
Rutabagas		bushel	— —	56 / bushel
Rye		bushel	— —	56 / bushel
Salt, rock,	Solid	— — —	136	3,670 / cu. yard
	Coarse	— — —	45	1,215 / cu. yard
	Fine	— — —	50	1,350 / cu. yard
	Barrel (average)	— — —	— —	280 / barrel
Sand, fine,	Dry	— — —	110	2,970 / cu. yard
	Wet	— — —	125	3,375 / cu. yard
Sand, coarse,	Dry	— — —	95	2,565 / cu. yard
	Wet	— — —	120	3,240 / cu. yard
Sand,	Mixed	— — —	115	3,100 / cu. yard
Sandstone,	Solid	— — —	147	3,970 / cu. yard
	Crushed	— — —	86	2,325 / cu. yard
Shale,	Solid	— — —	172	4,645 / cu. yard
	Crushed	— — —	92	2,485 / cu. yard
Sheep,	Live (average)	per head	— —	125-150 / head
Shingles,	Bundle	Pkg. in bndls. of 200-250 Size (avg.) 24" x 20" x 10"	— —	50 / bundle
Snow,	Moist-packed	— — —	50	1,350 / cu. yard

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 11

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Soft drinks,	Half depth bottle box 24-6 to 8 oz. bottles	12.25" x 18.75" x 8.5"	— —	39 / box
	Full depth bottle box 12-24 to 32 oz. bottles	13.38" x 18.5" x 12.25"	— —	60 / box
Sorghum syrup		— — —	86	11.5 / gallon
Soybeans		bushel	— —	60 / bushel
Soybean oil		— — —	58	7.7 / gallon
Spinach,	Hamper	bushel	— —	20 / bushel
	Basket	bushel	— —	27 / bushel
Spruce*		— — —	28	2,330 / M. Bd. ft.
Squash		bushel	— —	46 / bushel
Starch		— — —	96	2,590 / cu. yard
Stone,	Crushed, (average)	— — —	100	2,700 / cu. yard
	Rip-rap	— — —	65	1,755 / cu. yard
Straw,	Bale	17" x 22" x 42"	— —	110 / bale
	Bale	26" x 30" x 46"	— —	180 / bale
Street sweepings		— — —	32	865 / cu. yard
Sugar		— — —	100	2,700 / cu. yard
Sugar,	Bag	(100 lbs. net)	— —	101 / bag
	Barrel (22 lbs. empty)	19.13" head, 30" stave	— —	345 / barrel
	Case	24 – 5-lb. cartons	— —	135 / case
	Case	60 – 2-lb. cartons	— —	135 / case
Sugar cane syrup		— — —	85	11.3 / gallon
Sulphur		— — —	125	3,375 / cu. yard
Sulfuric acid, 87%		— — —	112	15 / gallon
Sweet corn,	Basket	bushel	— —	45 / bushel
	Crate	13" x 13" x 24"	— —	60 / crate
Sycamore*		— — —	37	3,080 / M. Bd. ft.
Tallow		— — —	60	1,620 / cu. yard

Figure 12

Product		Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Tanks, Acetylene,	102 cu. foot	empty	— —	70 / tank
		filled	— —	75 / tank
	310 cu. foot	empty	— —	200 / tank
		filled	— —	220 / tank
Tanks, Oxygen,	150 cu. foot	empty	— —	80 / tank
		filled	— —	92 / tank
	300 cu. foot	empty	— —	133 / tank
		filled	— —	153 / tank
Tar		— — —	65	1755 / cu. yard
Tile,	Solid	— — —	115	3,100 / cu. yard
	Partition (construction)	— — —	40	1,080 / cu. yard
Tomatoes,	Basket	bushel	— —	55 / bushel
	Lug box	7.25" x 14" x 17.5"	— —	35 / box
	Crate	10.5" x 11.25" x 24"	— —	48 / crate
	Basket	8.5" x 8.75" x 20"	— —	18 / basket
	Basket (paper)	4.25" x 8.5" x 16.25"	— —	9 / basket
	Basket (wood)	5.5" x 7.25" x 16.5"	— —	10 / basket
Turpentine		— — —	54	7.2 / gallon
Turnips,	Basket	bushel	— —	54 / bushel
Vetch seed		bushel	— —	60 / bushel
Vinegar		— — —	64	8.5 / gallon
Walnuts,	Bulk	bushel	— —	50 / bushel
	Bag	2 bushel	— —	100 / bag
Water,	Fresh	— — —	63	8.4 / gallon
Wheat,	Bulk	bushel	— —	60 / bushel
	Bag	1.5 bushel	— —	90 / bag
Wool,	Pressed	— — —	82	2,215 / cu. yard

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 13

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	3500 HG GAS	4500 HG GAS
GVWR / GCWR	12,000 lbs. / 18,000 lbs.	14,500 lbs./ 20,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
Horsepower	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	8L90 Hydra-Matic 8-speed automatic w/lock-up converter and overdrive. PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.	
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	4,860 lbs.	6,630 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	8,840 lbs.	11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	16 x 6.0 6-hole disc wheels, painted white.	19.5 x 6.0 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	225/70R-19.5F/G (12/14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. 4 channel anti-lock brake system.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All steel, low cab forward, BBC 70.9 in, 45˚ mechanical tilt with torsion assist.	
Cab Equipment	TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	3500 HG GAS CREW	4500 HG GAS CREW
GVWR / GCWR	12,000 lbs. / 18,000 lbs.	14,500 lbs./ 20,500 lbs.
WB	150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
Horsepower	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	8L90 Hydra-Matic 8-speed automatic w/lock-up converter and overdrive. PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.	
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	4,860 lbs.	6,630 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	8,840 lbs.	11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	16 x 6.0 6-hole disc wheels, painted white.	19.5 x 6.0 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	225/70R-19.5F/G (12/14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. 4 channel anti-lock brake system.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All-steel, low cab forward, BBC 109.9 in., 7-passenger seating.	
Cab Equipment	TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat and four passenger rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, and tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 HG GAS	5500 XG GAS
GVWR / GCWR	17,950 lbs. / 23,950 lbs.	19,500 lbs./ 25,500 lbs.
WB	132.5 in, 150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
HP	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	Allison 1000 RDS 6-speed automatic transmission. **PTO not available.**	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	6,830 lbs.	7,275 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	13,660 lbs.	14,460 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	19.5 x 6.0 6-hole disc wheels, painted white.	
Tires	225/70R-19.5G (14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	
Brakes	Dual circuit power assisted hydraulic 4-channel anti-lock service brake system with EBD (Electronic Brake Distribution) for load proportioning of the front and rear disc brakes. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All steel, low cab forward, BBC 70.9 in, 45˚ mechanical tilt with torsion assist.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard.	
Electrical	12-volt, negative ground, maintenance free battery located on frame, 750 CCA, 145-amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 HG GAS CREW	5500 XG GAS CREW
GVWR / GCWR	17,950 lbs. / 23,950 lbs.	19,500 lbs./ 25,500 lbs.
WB	150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
HP	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	Allison 1000 RDS 6-speed automatic transmission. **PTO not available.**	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	6,830 lbs.	7,275 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	13,660 lbs.	14,460 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	19.5 x 6.0 6-hole disc wheels, painted white.	
Tires	225/70R-19.5G (14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	
Brakes	Dual circuit power assisted hydraulic 4-channel anti-lock service brake system with EBD (Electronic Brake Distribution) for load proportioning of the front and rear disc brakes. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All-steel, low cab forward, BBC 109.9 in., 7-passenger seating.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat and four passenger rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, and tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Rear body dome lamp switch and air conditioning are standard.	
Electrical	12-volt, negative ground, maintenance free battery located on frame, 750 CCA, 145-amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings – 3500 / 4500 HG

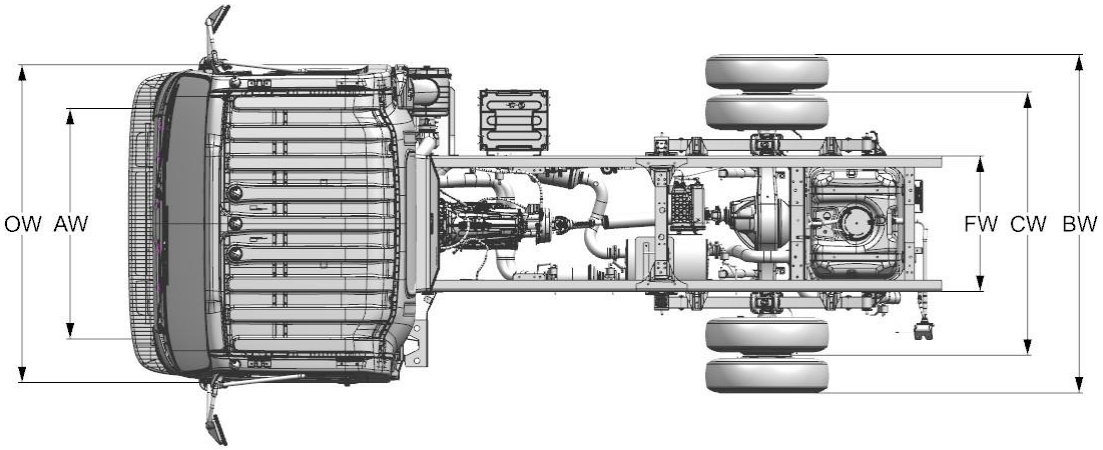


Figure 1

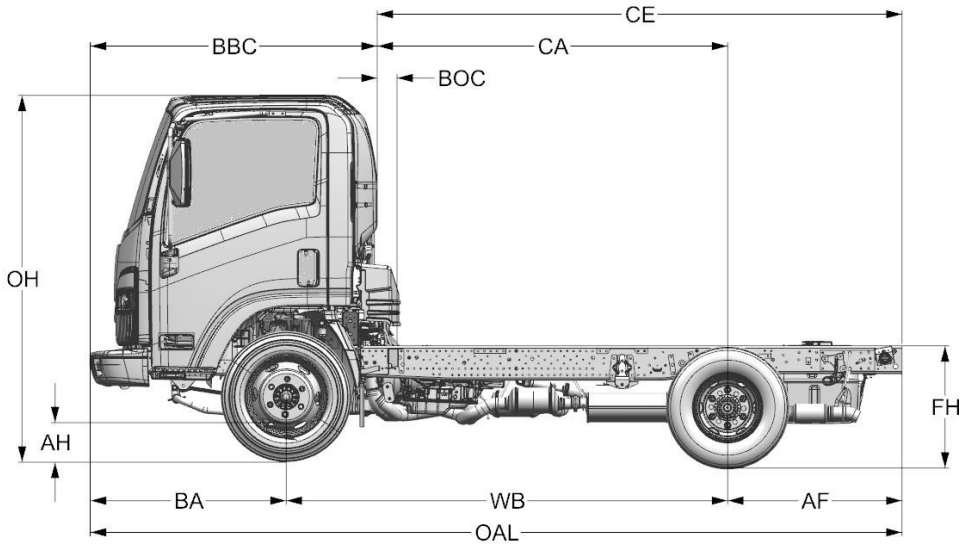


Figure 2

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
109	86.5	129.6	43.1	200.5
132.5	110.0	153.1	43.1	224.0
150	127.5	170.6	43.1	241.5
176	153.5	196.6	43.1	267.5

DIMENSION CONSTANTS (in.)	
AW = Front axle track	65.6
BA = Front bumper to centerline of axle	48.4
BBC = Bumper to back of cab	70.9
BOC = Back of cab clearance	7.7
BW = Overall width across rear axle	83.3
CW = Rear axle track	65
FW = Frame width	33.5
OW = Overall width across cab (without mirrors)	81.3

VARIABLE DIMENSIONS BY GVWR (in.)	12,000 lb.	14,500 lb.
AH = Ground to bottom of axle	7.5	8.3
FH = Frame height (unladen) at E.O.F.[3]	31.8	33
OH = Overall height (without clearance lights)	90	90.9

Notes:
[1] Effective CA is CA less BOC.
[2] Effective CE is CE less BOC.
[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings – 3500 HG / 4500 HG CREW

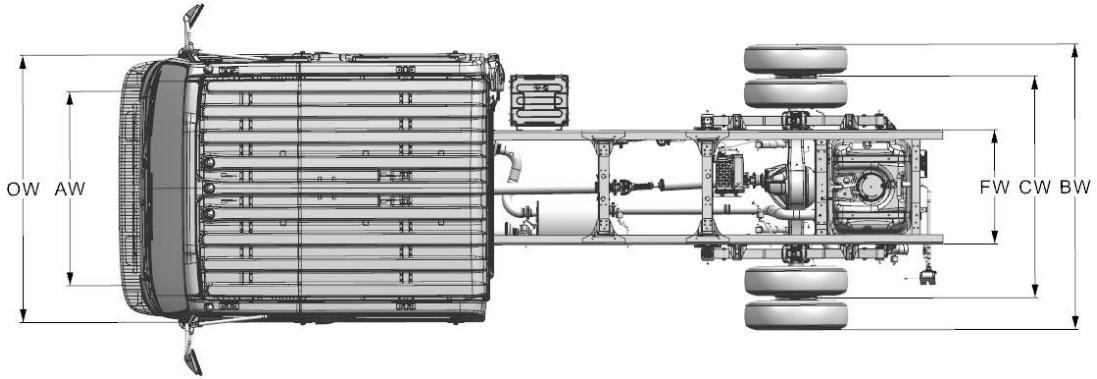


Figure 3

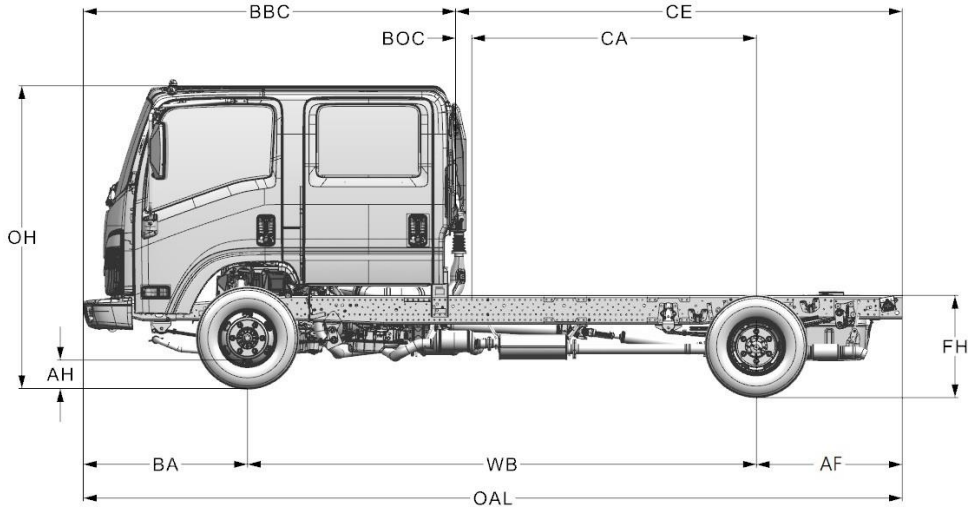


Figure 4

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
150	88.5	131.6	43.1	241.5
176	114.5	157.6	43.1	267.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.4
BBC = Bumper to back of cab				109.9
BOC = Back of cab clearance				5
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)			12,000 lb.	14,500 lb.
AH = Ground to bottom of axle			7.5	8.3
FH = Frame height (unladen) at E.O.F.[3]			31.8	33
OH = Overall height (without clearance lights)			90	91.1

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings – 5500 HG / 5500 XG

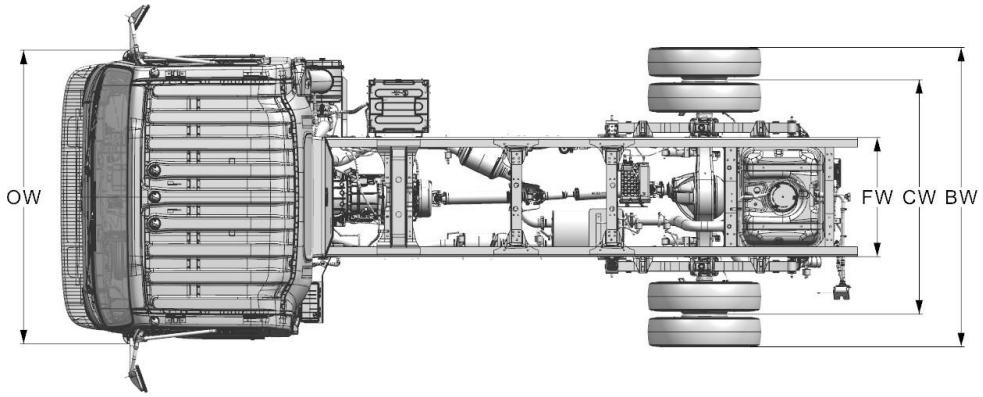


Figure 5

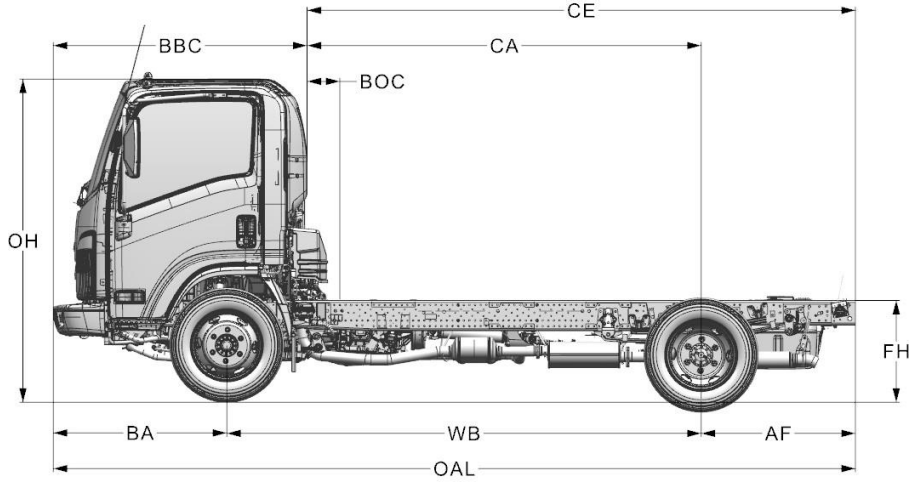


Figure 6

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
132.5	110.0	153.1	43.1	224.0
150	127.5	170.6	43.1	241.5
176	153.5	196.6	43.1	267.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.3
BBC = Bumper to back of cab				70.9
BOC = Back of cab clearance				7.7
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)			17,950 lb.	19,500 lb.
AH = Ground to bottom of axle			7.5	7.5
FH = Frame height (unladen) at E.O.F.[3]			33	33
OH = Overall height (without clearance lights)			92.4	92.4

Notes:
[1] Effective CA is CA less BOC.
[2] Effective CE is CE less BOC.
[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings – 5500 HG / 5500 XG CREW

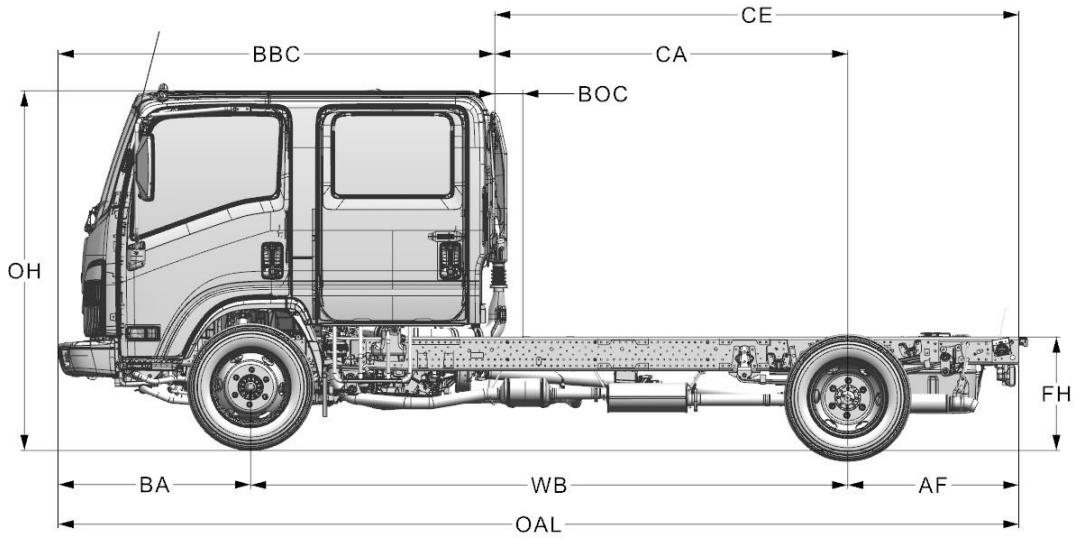


Figure 7

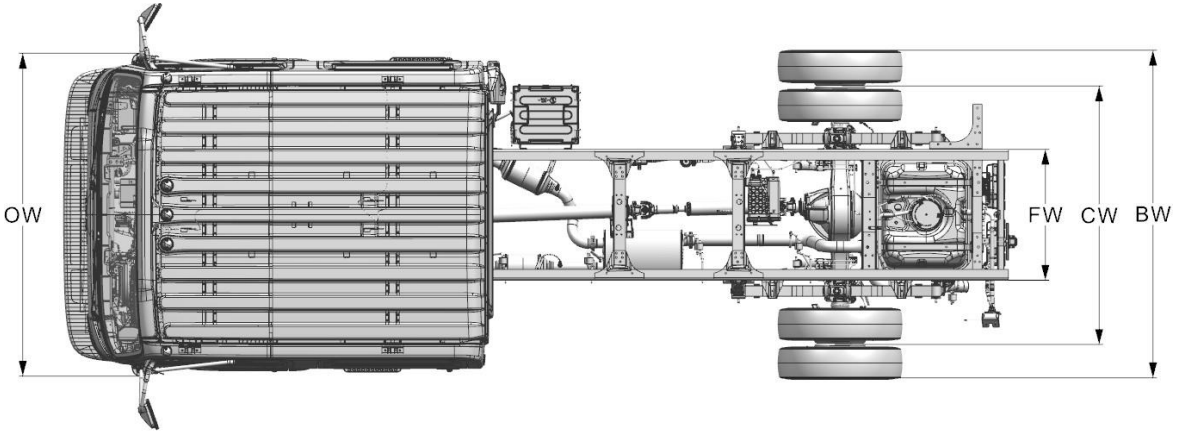


Figure 8

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
150	88.5	131.6	43.1	241.5
176	114.5	157.6	43.1	267.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.3
BBC = Bumper to back of cab				109.9
BOC = Back of cab clearance				5
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)			17,950 lb.	19,500 lb.
AH = Ground to bottom of axle			7.5	7.5
FH = Frame height (unladen) at E.O.F.[3]			33	33
OH = Overall height (without clearance lights)			92.4	92.4

Notes:
[1] Effective CA is CA less BOC.
[2] Effective CE is CE less BOC.
[3] Measured at the end of the frame from the top of the frame to the ground at curb weight. C

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings

Chassis Curb Weights and Payloads						
3500 HG GAS STANDARD CAB - 12,000 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1C1	109	lbs.	3309	1845	5154	6846
1C2	132.5	lbs.	3360	1896	5256	6744
1C3	150	lbs.	3380	1905	5285	6715
1C4	176	lbs.	3408	1925	5333	6667
4500 HG GAS STANDARD CAB - 14,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1F1	109	lbs.	3439	2075	5514	8986
1F2	132.5	lbs.	3488	2105	5593	8907
1F3	150	lbs.	3519	2114	5633	8867
1F4	176	lbs.	3549	2125	5674	8826

Figure 9

CHASSIS CURB WEIGHTS AND PAYLOADS						
5500 HG GAS STANDARD CAB - 17,950 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1R2	132.5	lbs.	3663	2223	5886	12064
1R3	150	lbs.	3713	2216	5929	12021
1R4	176	lbs.	3753	2230	5983	11967
5500 XG GAS STANDARD CAB - 19,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1U2	132.5	lbs.	3666	2223	5889	13611
1U3	150	lbs.	3716	2216	5932	13568
1U4	176	lbs.	3756	2230	5986	13514

Figure 10

Chassis Curb Weights and Payloads						
3500 HG GAS CREW CAB - 12,000 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1D3	150	lbs.	3759	2075	5834	6166
1D4	176	lbs.	3810	2075	5885	6115
4500 HG GAS CREW CAB - 14,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1G3	150	lbs.	3898	2284	6182	8318
1G4	176	lbs.	3948	2275	6223	8277

Figure 11

CHASSIS CURB WEIGHTS AND PAYLOADS						
5500 HG GAS CREW CAB - 17,950 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1S3	150	lbs.	4073	2406	6479	11471
1S4	176	lbs.	4143	2400	6543	11407
5500 XG GAS CREW CAB - 19,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1V3	150	lbs.	4076	2406	6482	13018
1V4	176	lbs.	4146	2400	6546	12954

Figure 12

Notes:

Chassis curb weight reflects standard equipment and fuel, but no driver or payload. Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weight Limits and Option Weights

VEHICLE WEIGHT RATINGS				
Description	3500 HG Capacity (lb.)	4500 HD Capacity (lb.)	5500 HG Capacity (lb.)	5500 XD Capacity (lb.)
GVWR Designed Maximum	12,000	14,500	17,950	19,500
GCWR Combined Maximum	18,000	20,500	23,950	25,500
GAWR - Front	4,860	6,630	6,830	7,275
GAWR - Rear	8,840	11,020	13,660	14,460

Option Weights

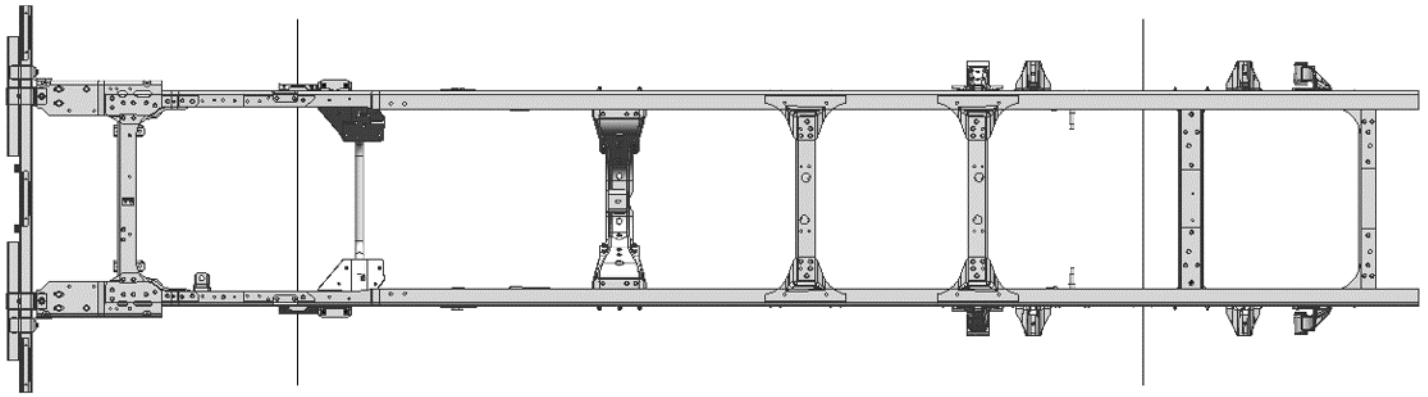
RPO[1]	Option Description	Front / Rear (lb)
I0Z	Spartan Modification Center ship thru code	0 / 0
I6I	AGM batteries (825 CCA x 1)	6 / 3
IF4	Air deflector roof mounted (not available in crew cab)	64 / 0
I1V	Audio system with 7" diagonal color touch screen	5 / 1
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	5 / 2
UZF	Back up alarm	0 / 2
I8T	Chrome grille	1 / 0
IY4	Delete standard radio	-3 / 0
I4W	Engine block heater with receptacle (115V 400W)	3 / 0
IF6	Fire extinguisher and triangle kit	19 / 0
I4V	Forward Collision and Lane Departure Warning (Mobileye)	2 / 0
I4Z	Front panel film	1 / 0
I0W	Heated dual remote control mirrors (17" head)	4 / 0
IS0	Heated mirrors	1 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger seat only)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only)	0 / 0
I4K	Keyless entry system	3 / 0
I6L	LED lighting package (converts all exterior and interior chassis lighting to LED bulbs)	0 / 0
IU2	Mirror bracket for 102" wide body	1 / 0
IV9	Seat covers crew cab	12 / 0
IV8	Seat covers for standard cab seats	6 / 0
I1M	Seat covers standard cab with suspension seat	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I3G	Speed limited to 65 mph (max cruise speed 60 mph)	0 / 0
I6T	Suspension driver's seat (standard cab only)	18 / 0
I2M	Delete Cruise Control Switch	0 / 0
SEO[1]	Option Description	Front / Rear (lb)
04	Standard model specifications with power windows, power door locks, and air conditioning	Standard chassis weight includes these features
14	In rail fuel tank with power windows, power door locks, air conditioning and Limited Slip Differential	0 / 15

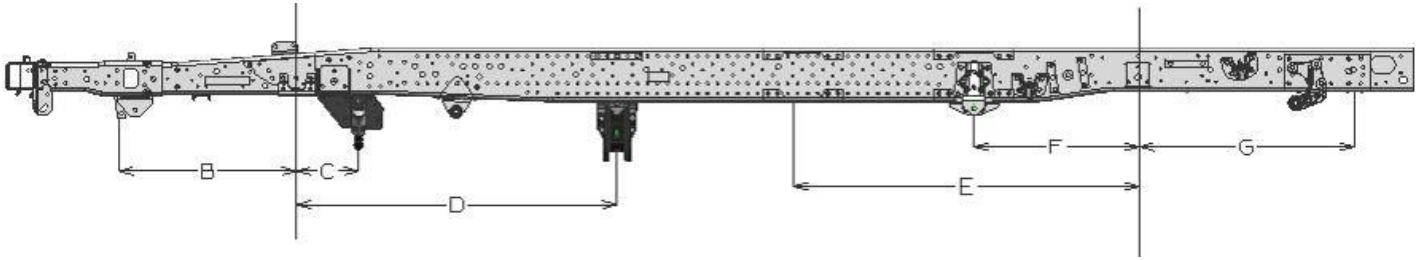
NOTES:

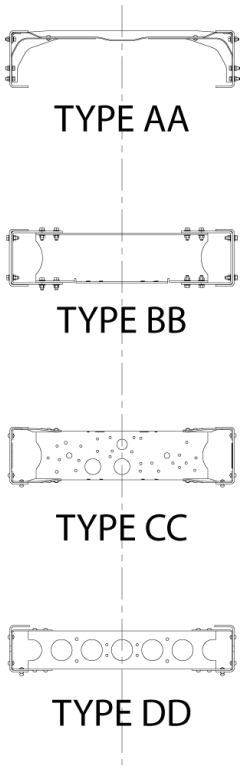
[1] RPO is Regular Production Option that is stocked in Port inventory.
LSO is Limited Stock Option that is stocked in Port inventory but should be checked for availability and delivery time.
SEO is Special Equipment Option and requires 90-120 day lead time for delivery.

2025 Chevrolet Low Cab Forward

Frame and Crossmember Specifications - STD CAB







3500 HG / 4500 HG

WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
109	0.24	28	9.75	AA 50.4	-	CC 26.0	DD 33.8
132.5	0.24	28	9.75	AA 50.4	BB 54.4	CC 26.0	DD 33.8
150	0.24	28	9.75	AA 50.4	BB 57.9	CC 26.0	DD 33.8
176	0.24	28	9.75	AA 50.4	BB 74.5	CC 26.0	DD 33.8

5500 HG / 5500 XD

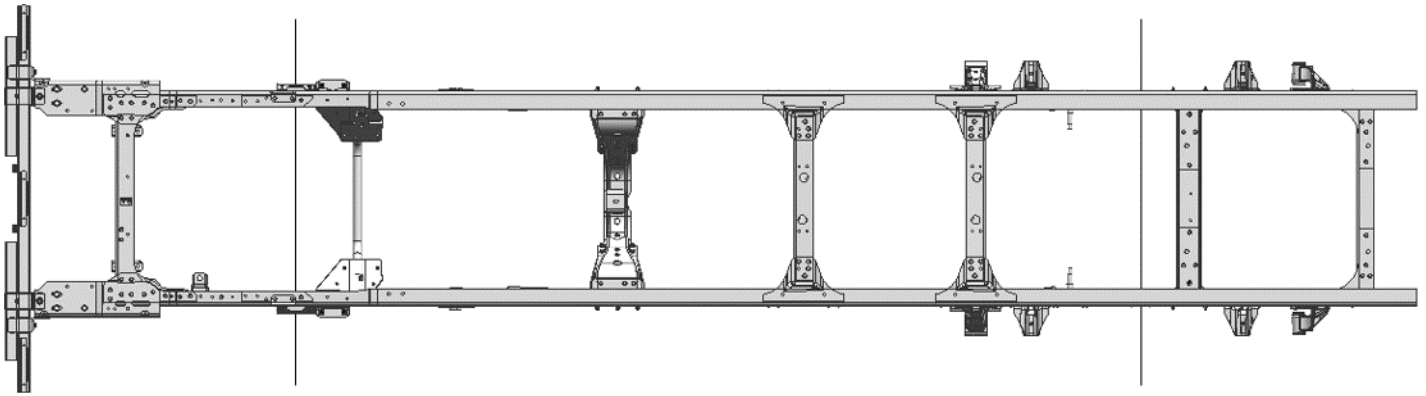
WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
132.5	0.24	27.55	9.9	AA 36.67	BB 57.68	CC 25.98	DD 33.62
150	0.24	27.55	9.9	AA 36.67	BB 58.07	CC 25.98	DD 33.62
176	0.24	27.55	9.9	AA 36.67	BB 74.61	CC 25.98	DD 33.62

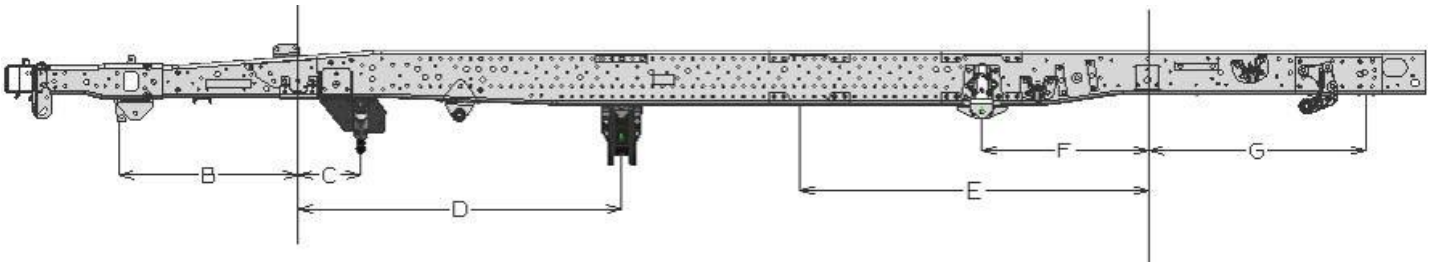
Dimensions in inches

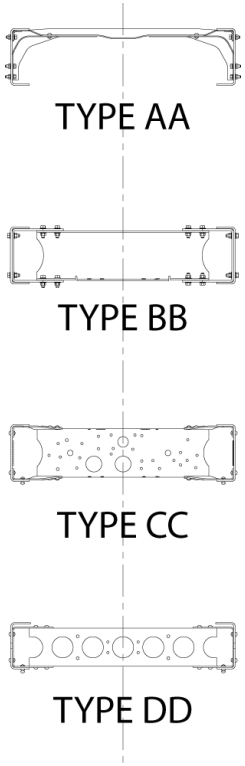
Figure 13

2025 Chevrolet Low Cab Forward

Frame and Crossmember Specifications - CREW CAB







3500 HG / 4500 HG

WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
150	0.24	28	9.75	AA 50.4	BB 57.9	CC 26.0	DD 33.8
176	0.24	28	9.75	AA 50.4	BB 74.5	CC 26.0	DD 33.8

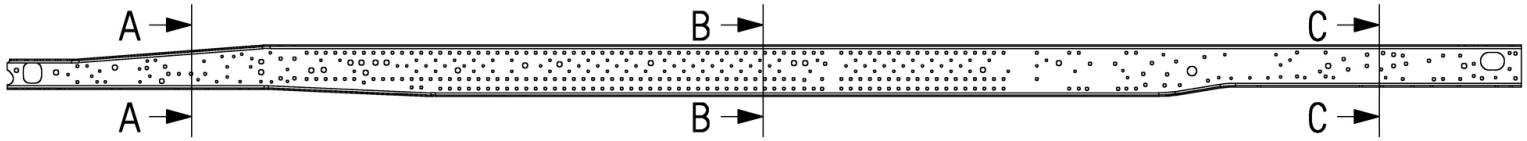
5500 HG / 5500 XD

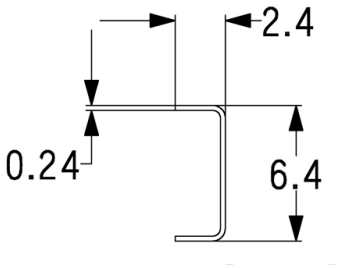
WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
150	0.24	27.55	9.9	AA 36.67	BB 58.07	CC 25.98	DD 33.62
176	0.24	27.55	9.9	AA 36.67	BB 74.61	CC 25.98	DD 33.62

Figure 14

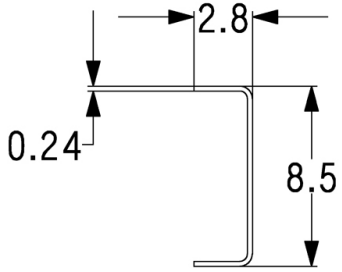
Dimensions in inches

Frame Chart

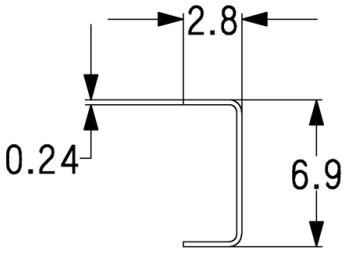




SECTION A-A



SECTION B-B



SECTION C-C

Wheelbase	Frame FL	Frame Thickness
109.0	182.5	0.24
132.5	206.1	0.24
150.0	223.8	0.24
176.0	249.8	0.24

Figure 15

Dimensions in inches

2025 Chevrolet Low Cab Forward

3500 HG / 4500 HG Standard Cab Dimension - Auxiliary Views

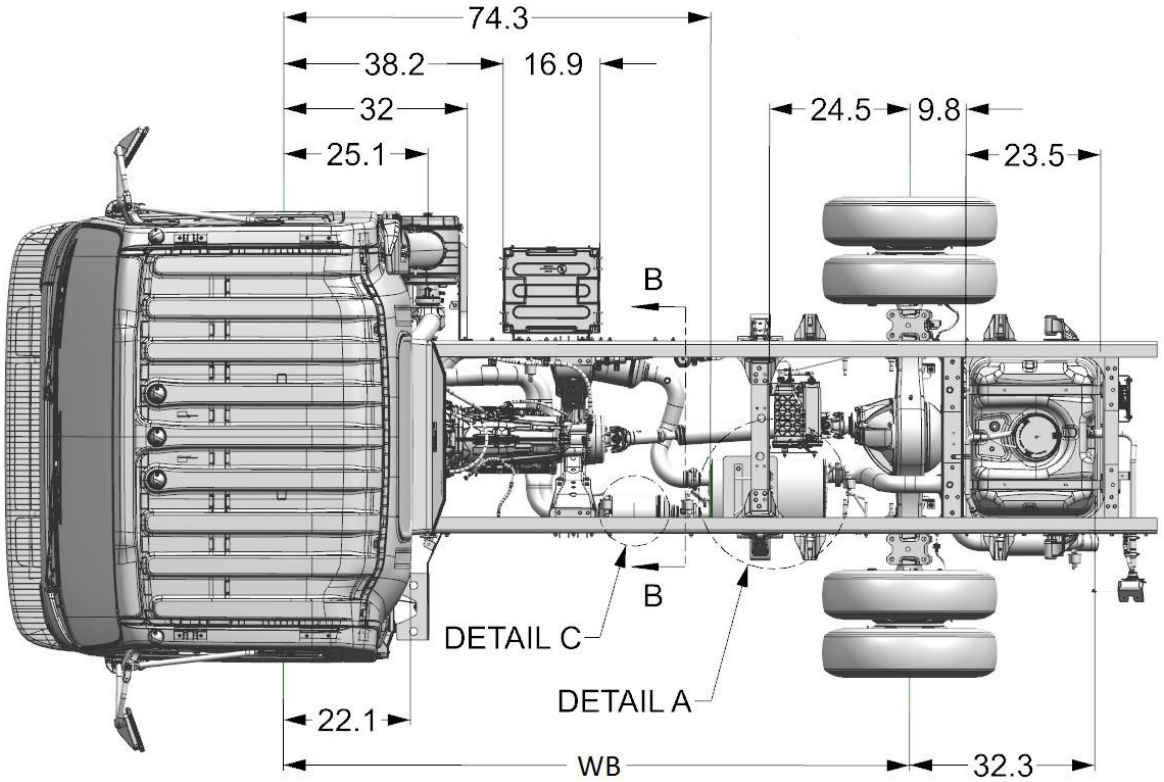


Figure 16

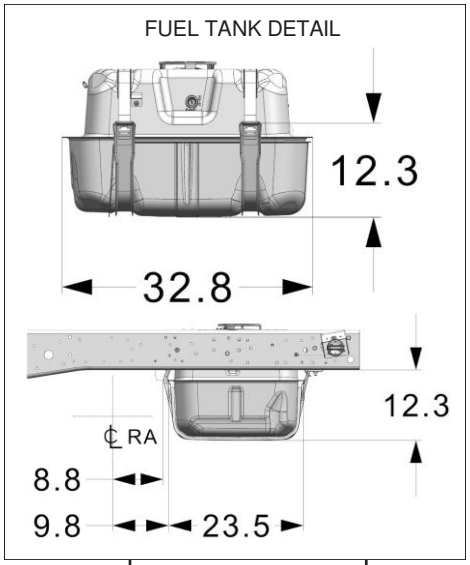


Figure 17

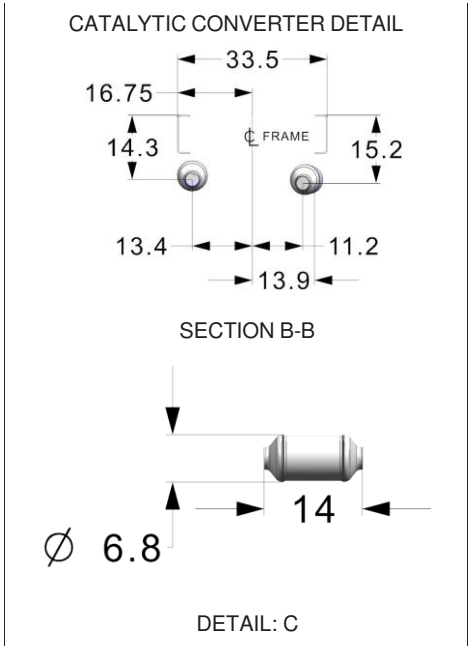


Figure 19

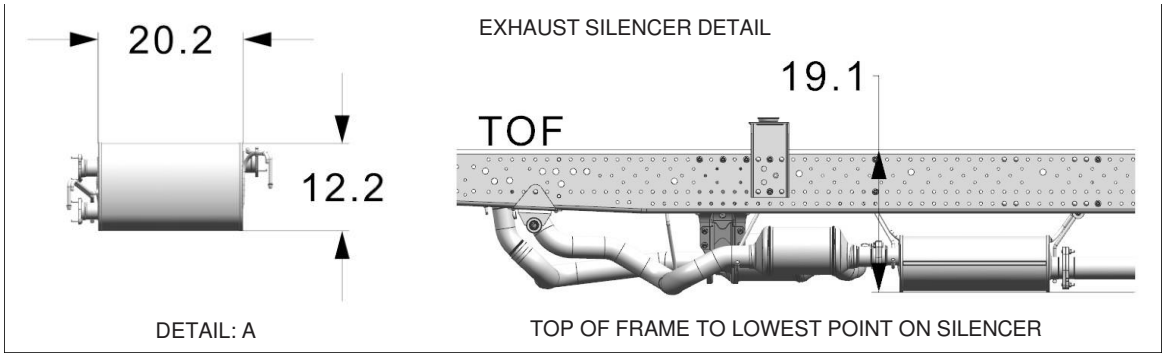


Figure 18

Dimensions in inches

2025 Chevrolet Low Cab Forward

5500 HG / 5500 XG Standard Cab Dimension - Auxiliary Views

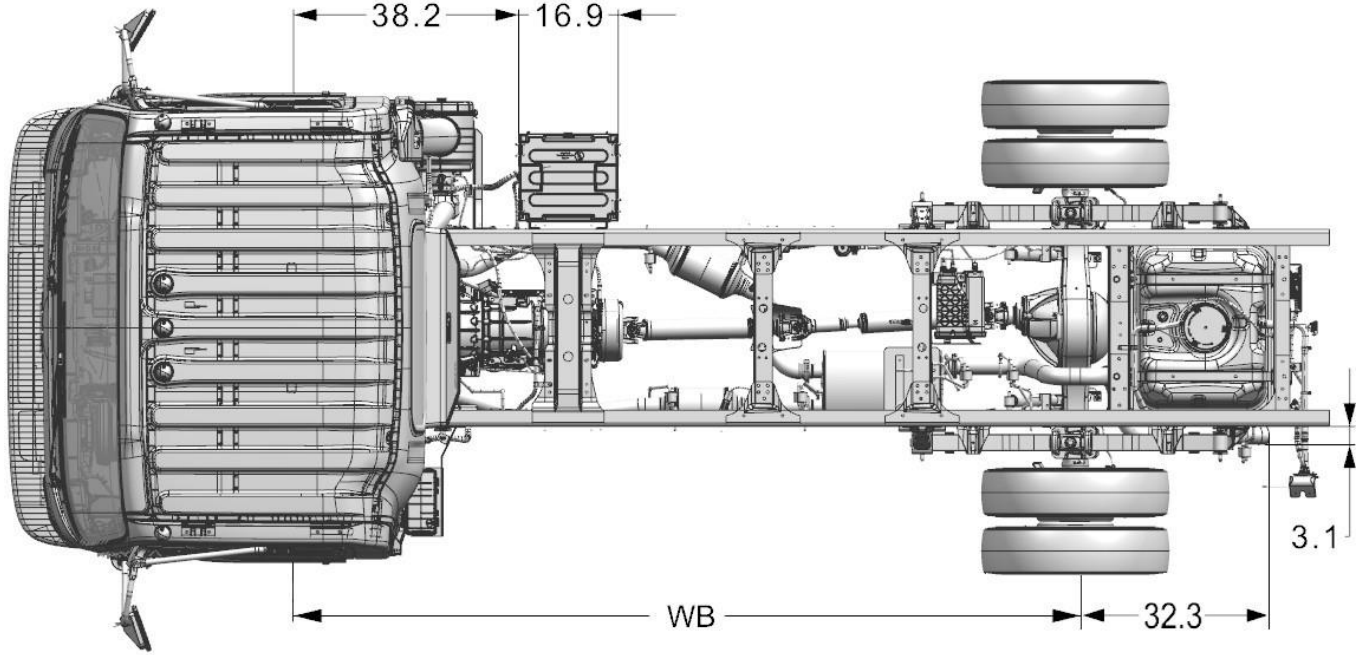


Figure 20

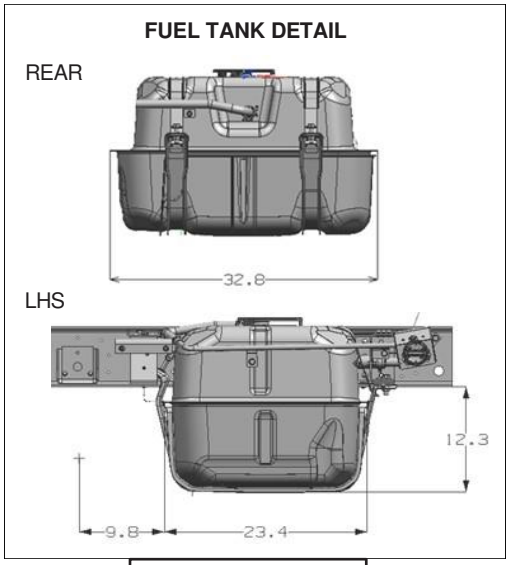


Figure 21

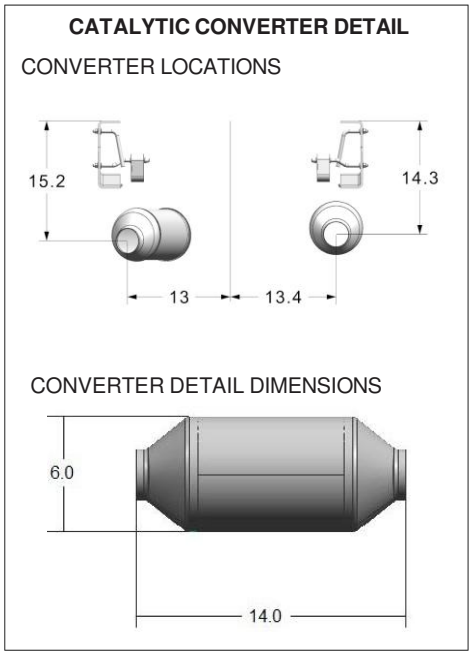


Figure 23

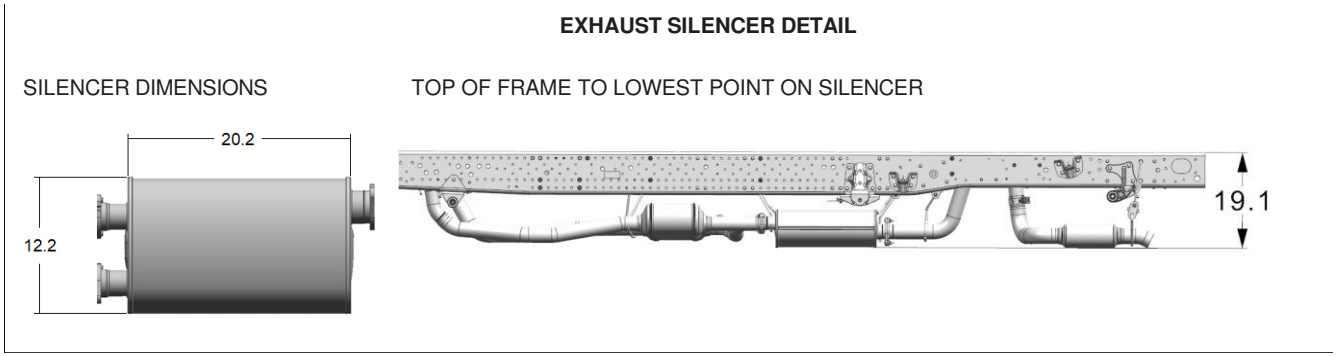


Figure 22

Dimensions in inches

2025 Chevrolet Low Cab Forward

3500 HG / 4500 HG Crew Cab Dimension - Auxiliary Views

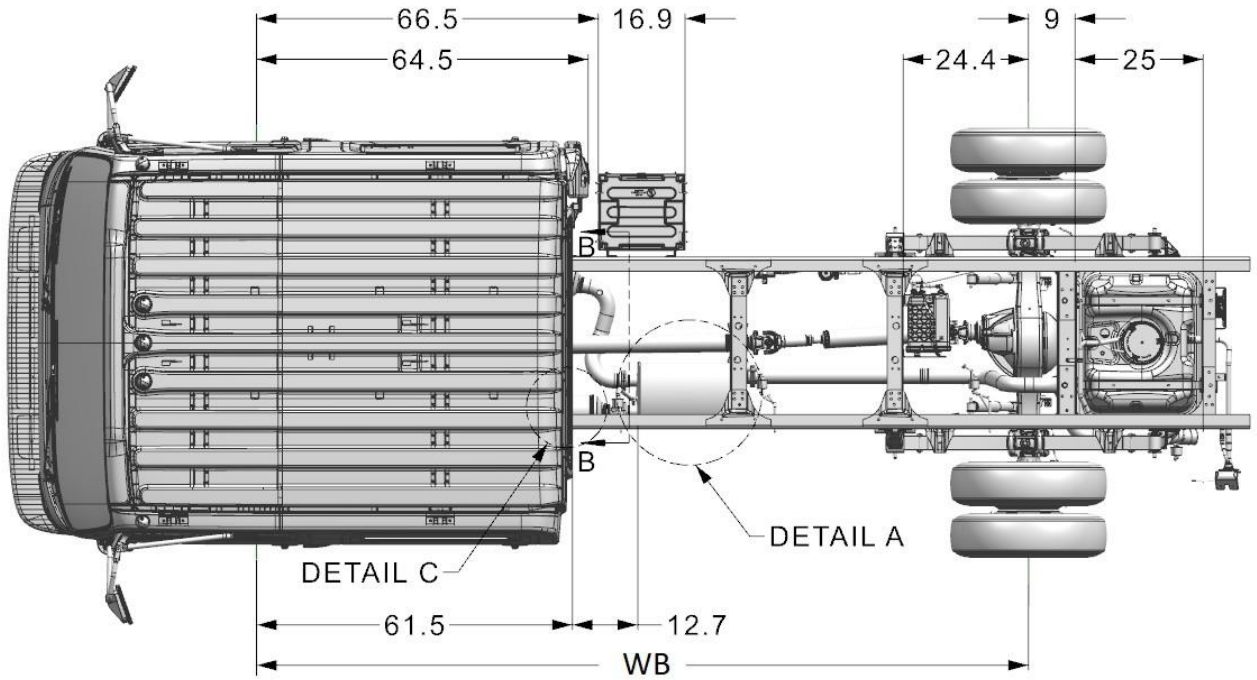


Figure 24

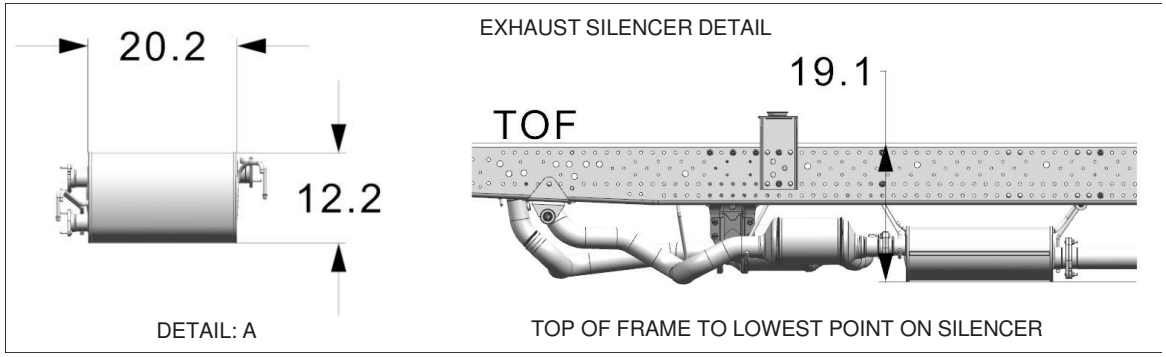


Figure 26

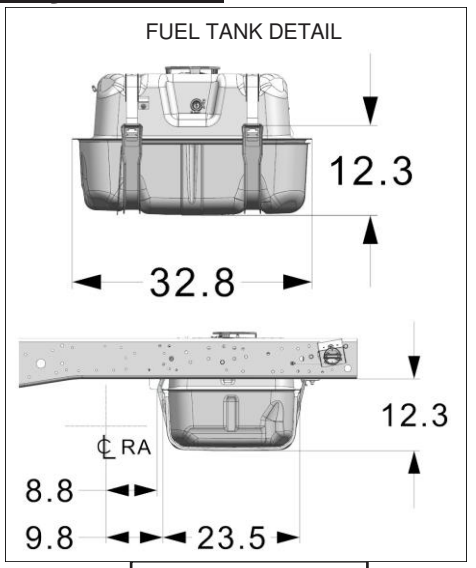


Figure 25

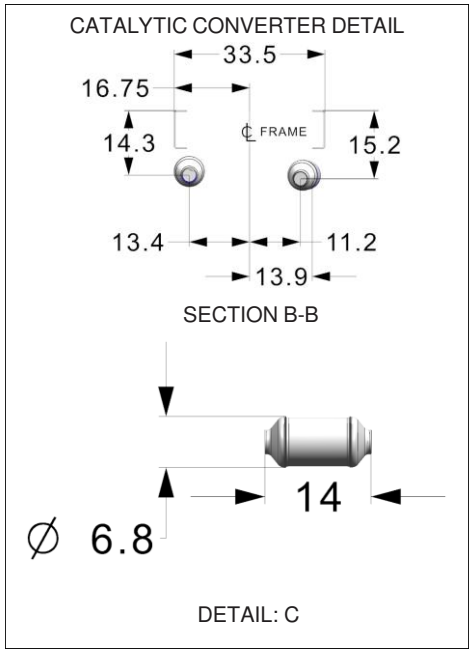


Figure 27

Dimensions in inches

2025 Chevrolet Low Cab Forward

5500 HG / 5500 XG Crew Cab Dimension - Auxiliary Views

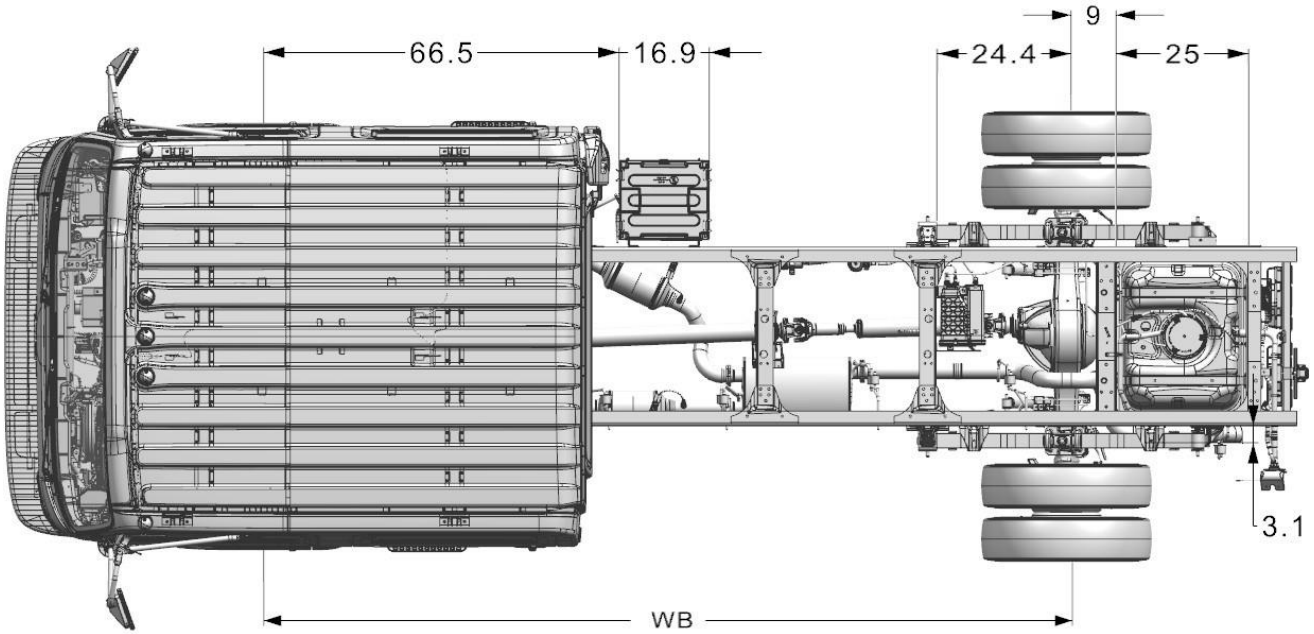
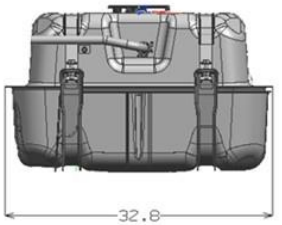


Figure 28

FUEL TANK DETAIL

REAR



LHS

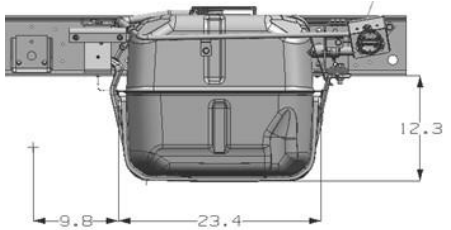
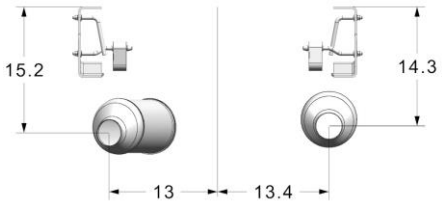


Figure 29

CATALYTIC CONVERTER DETAIL

CONVERTER LOCATIONS



CONVERTER DETAIL DIMENSIONS

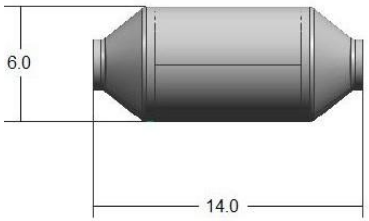
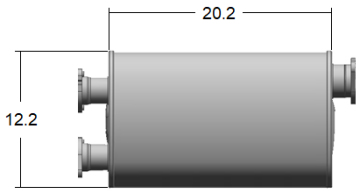


Figure 31

EXHAUST SILENCER DETAIL

SILENCER DIMENSIONS



TOP OF FRAME TO LOWEST POINT ON SILENCER

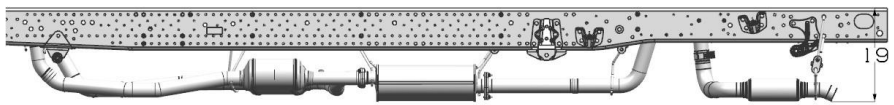


Figure 30

Dimensions in inches

Cab Tilt Illustration

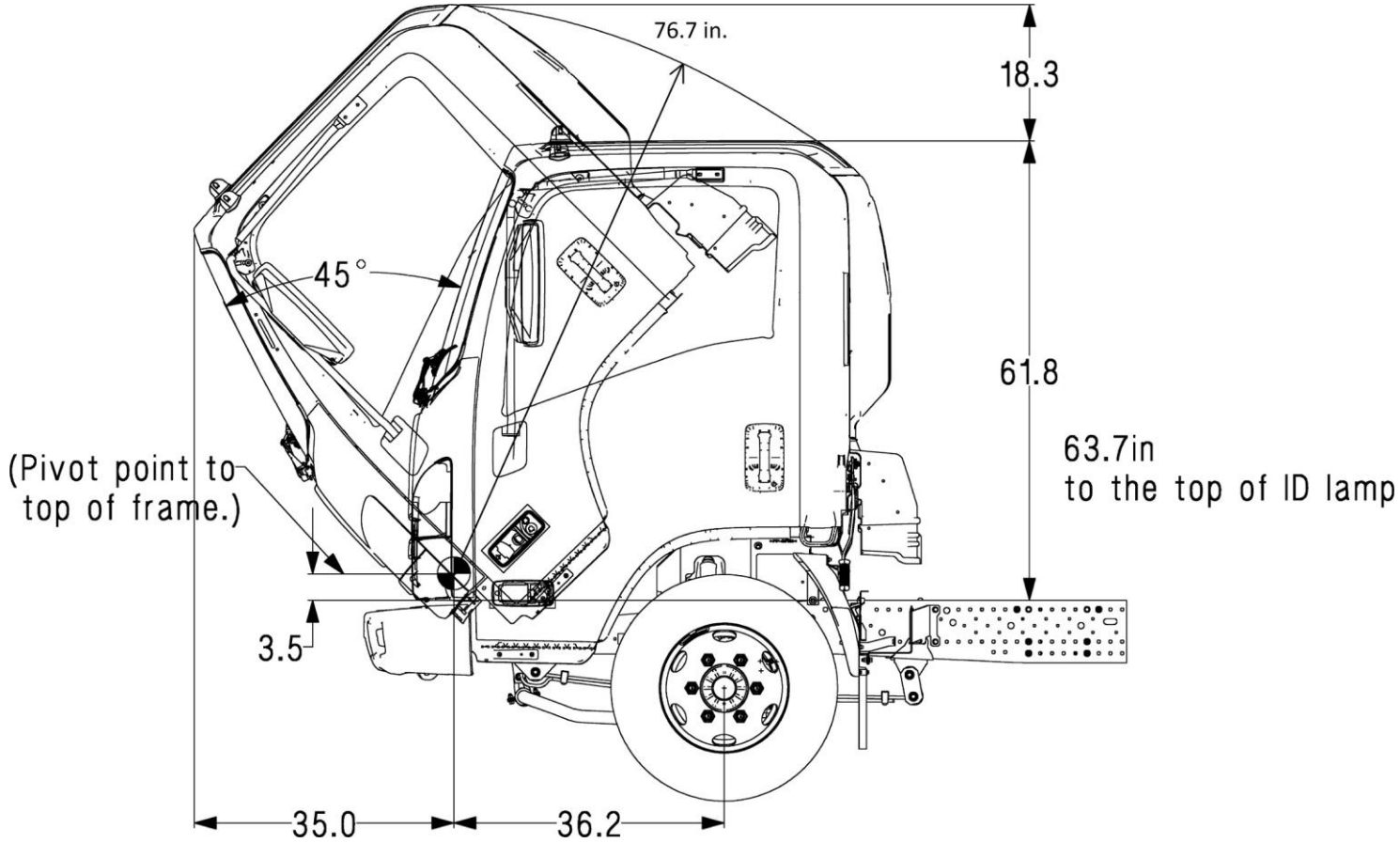


Figure 32

Dimensions in inches

2025 Chevrolet Low Cab Forward

Center of Gravity

Horizontal and Vertical Center of Gravity of Chassis			
GVWR	Wheelbase (in)	Vertical CG - **V** (in)	Horizontal CG - **H** (in)
12,000 lbs.	109	23.8	39.9
	132.5	23.7	48.3
	150	23.6	54.4
	176	23.6	63.7
14,500 lbs.	109	23.8	41.3
	132.5	23.7	49.9
	150	23.7	56.2
	176	23.6	64.3
17,950 lbs.	132.5	24.9	48.6
	150	25.0	54.7
	176	24.9	63.4
19,500 lbs.	132.5	24.9	50.3
	150	25.1	56.6
	176	25.0	65.0

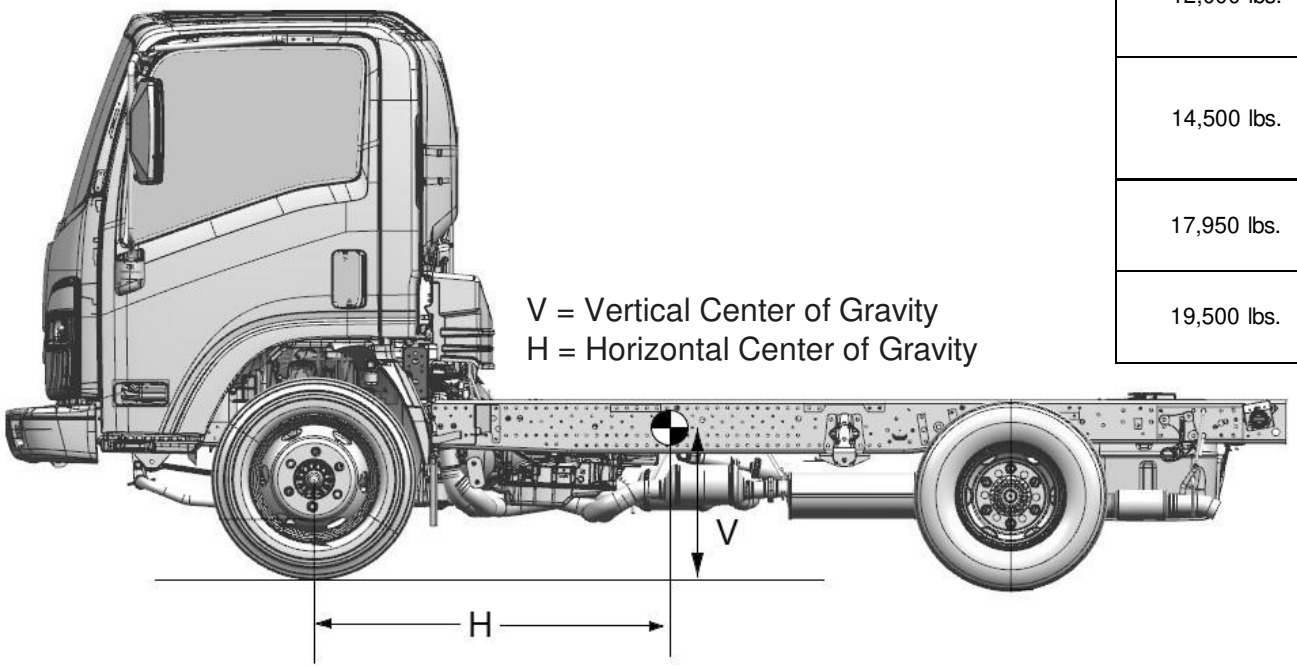


Figure 33

The maximum vertical center of gravity must not be exceeded at maximum GVWR and rated front and rear GAWR. The center of gravity maximum is 63" (1600mm) above ground. The horizontal center of gravity must be located between the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Incomplete Vehicle Document and the Body Builders Manual.

The maximum dimensions for a body installed on the LCF chassis are 102 inches wide (outside[1]) by 91 inches high (inside). If approval is needed for larger body applications, please contact GM Upfitter.

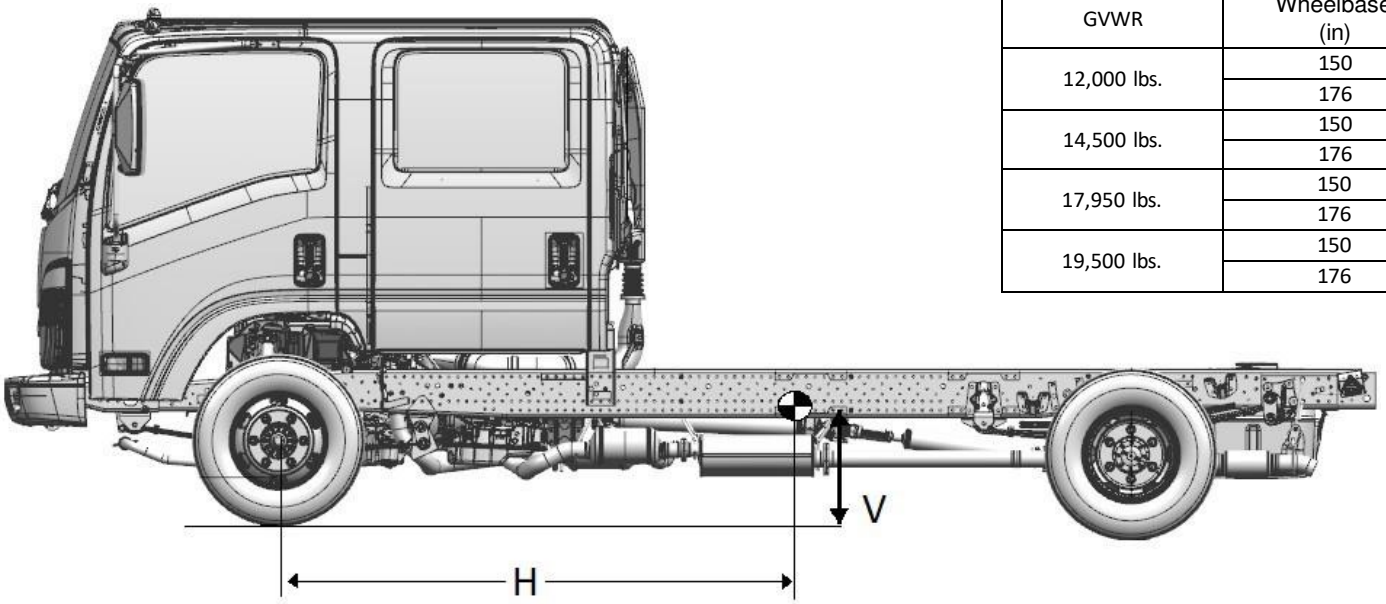
[1] With 102 inches wide mirror brackets installed in place of standard mirror brackets.

Dimensions in inches

2025 Chevrolet Low Cab Forward

Center of Gravity

Horizontal and Vertical Center of Gravity of Chassis			
GVWR	Wheelbase (in)	Vertical CG - **V** (in)	Horizontal CG - **H** (in)
12,000 lbs.	150	25.9	53.6
	176	28.8	62.4
14,500 lbs.	150	26.9	55.3
	176	26.9	64.3
17,950 lbs.	150	27.9	55.1
	176	28.0	63.2
19,500 lbs.	150	28.0	55.7
	176	28.1	63.9



V = Vertical Center of Gravity
H = Horizontal Center of Gravity

Figure 34

The maximum vertical center of gravity must not be exceeded at maximum GVWR and rated front and rear GAWR. The center of gravity maximum is 63" (1600mm) above ground. The horizontal center of gravity must be located between the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Incomplete Vehicle Document and the Body Builders Manual.

The maximum dimensions for a body installed on the LCF chassis are 102 inches wide (outside[1]) by 91 inches high (inside). If approval is needed for larger body applications, please contact GM Upfitter.

[1] With 102 inches wide mirror brackets installed in place of standard mirror brackets.

Dimensions in inches

Front Axle Chart

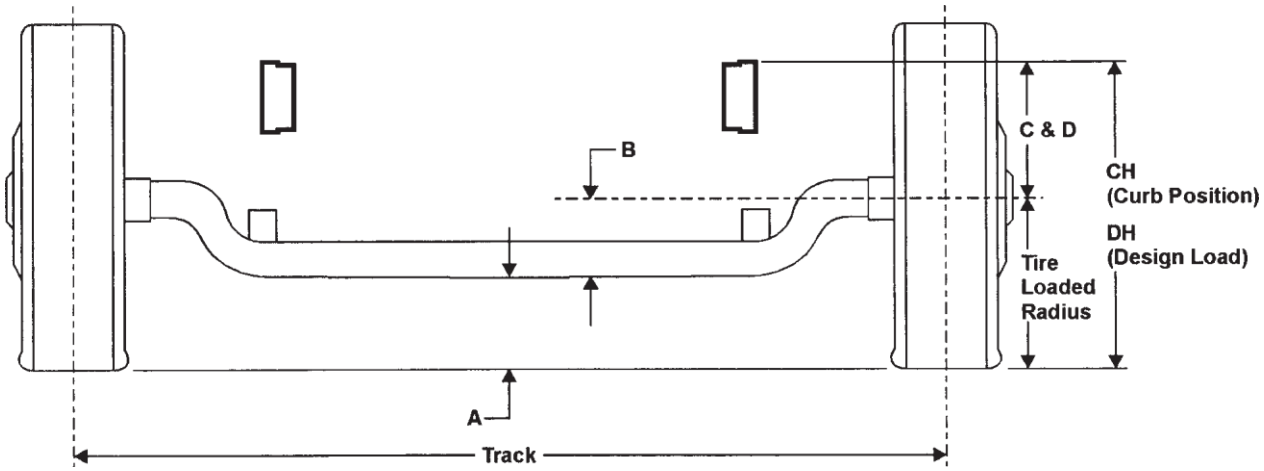


Figure 35

Formulas for calculating height dimensions:

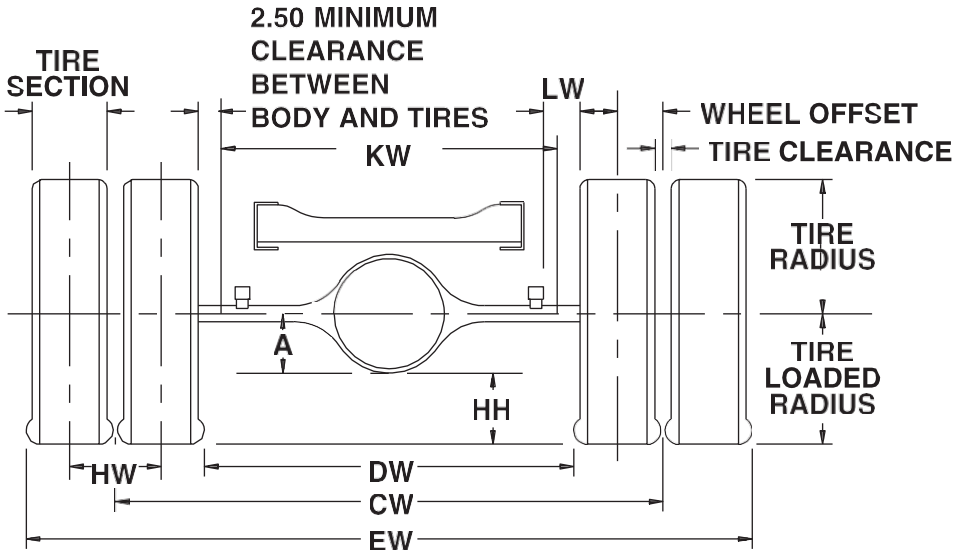
A = Tire Loaded Radius – B
C = Centerline of Axle to Top of Frame Rail at Curb Position
D = Centerline of Axle to Top of Frame Rail at Design Load
CH = C + Tire Unloaded Radius
DH = D + Tire Loaded Radius

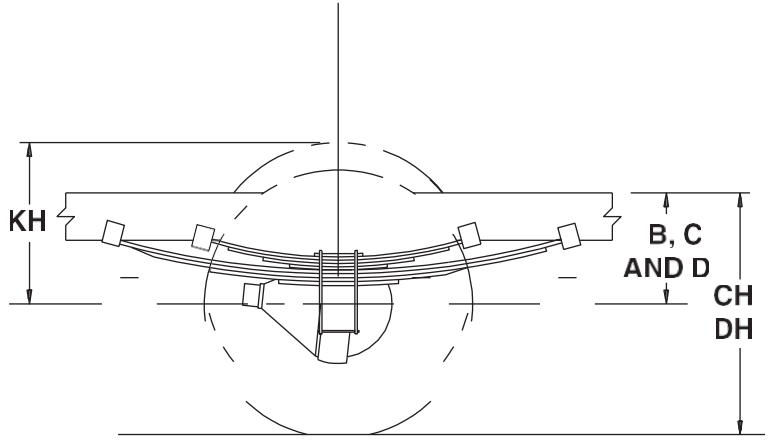
Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
										Unloaded	Loaded
215/85R 16-E	12,000 lbs.	4,860 lbs.	7.5	6.6	12.9	12.2	27.5	26.3	65.5	14.6	14.1
225/70R 19.5-F	14,500 lbs.	6,630 lbs.	8.3	6.6	13	11.5	29	26.4	65.5	16	14.93
225/70R 19.5G	17,950 lbs.	6,830 lbs.	8.5	6.5	12.6	11.7	27.6	26.7	66.2	16.1	15.0
225/70R 19.5G	19,500 lbs.	7,275 lbs.	8.5	6.5	12.6	11.9	27.6	26.9	66.2	16	14.9

Figure 36

Dimensions in inches

Rear Axle Chart





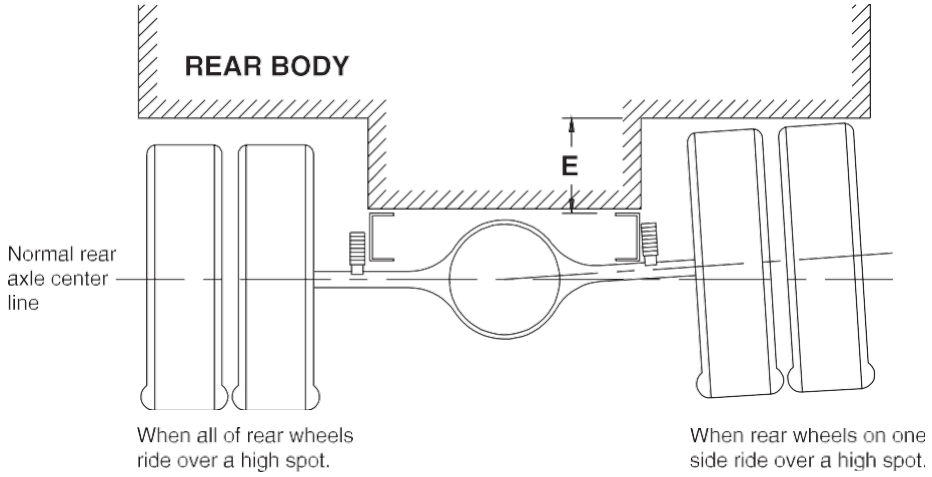


Figure 37

2025 Chevrolet Low Cab Forward

Definitions			
A	Centerline of axle to bottom of axle bowl.	DW	Minimum distance between the inner surfaces of the rear tires.
B	Centerline of axle to top of frame rail at metal-to-metal position.		
C	Centerline of axle to top of frame rail at curb position.	EW	Maximum Rear Width: Overall width of the vehicle measured at the outermost surface of the rear tires.
D	Centerline of axle to top of frame rail at design load.	HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.
E	Rear Tire Clearance: Minimum clearance required for tires and chain measured from the top of the frame at the vertical centerline of the rear axle, when rear wheels on one side ride over a high spot.	HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.
CH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.	KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.
DH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design load.	CW	Track Dual Rear Wheel Vehicles: Distance between the centerlines of the dual wheels measured at the ground-line.
	Tire Section, Tire Radius, Tire Loaded Radius, Tire Clearance		See Tire Chart for Values

Formulas for Calculating Rear Width and Height Dimensions			
CW	= Track	HH	= Tire loaded radius – A
CH	= Tire loaded radius + C	JH	= KH – B
DH	= Tire loaded radius + D	KH	= Tire radius + 3.00 inches
DW	= Track + 2 tire sections – tire clearance	KW	= DW – 5.00 inches
EW	= Track + 2 tire sections + tire clearance	LW	= 1.00-inch minimum clearance between tires and springs

NOTE: Track and overall width may vary with optional equipment.

Figure 38

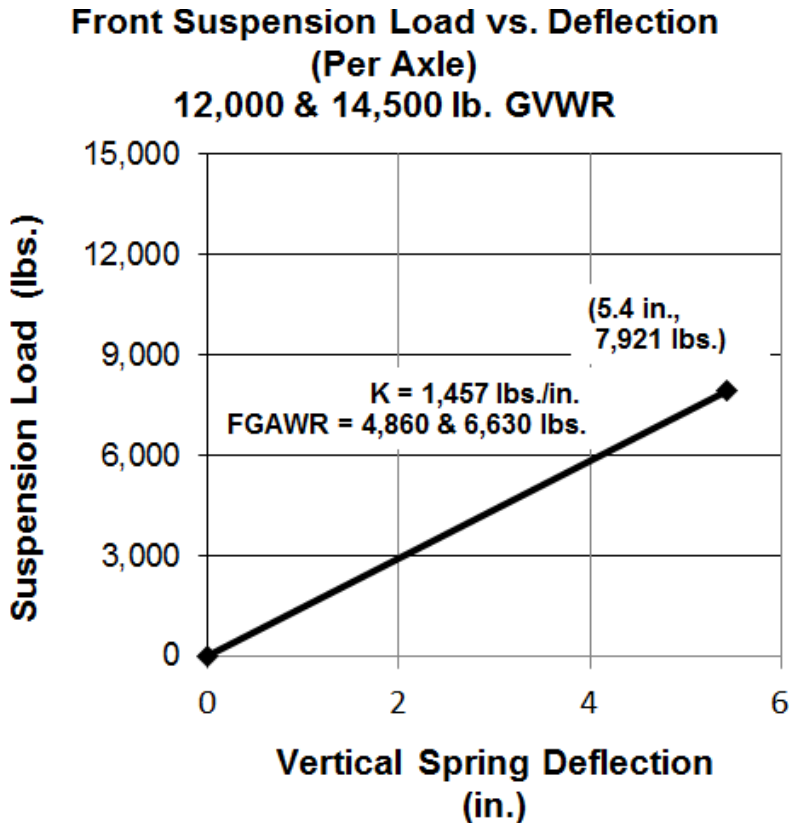
Tire	GAWR	Track CW	A	B	C	D	E
215/85R 16-E	8,840 lbs.	65.0	6.5	9.3	15.4	13.0	7.8
225/70R 19.5-F	11,020 lbs.	65.0	7.7	9.3	15.6	13.4	8.4
225/70R 19.5G	13,660 lbs.	65.9	7.6	9.3	15.3	14.1	8.4 [1]
225/70R 19.5G	14,460 lbs.	65.9	7.6	9.3	15.3	13.9	8.4 [1]

[1] - Previous Model. Update Coming Soon

Figure 39

Dimensions in inches

Suspension Deflection Charts – 3500 HG / 4500 HG Gas



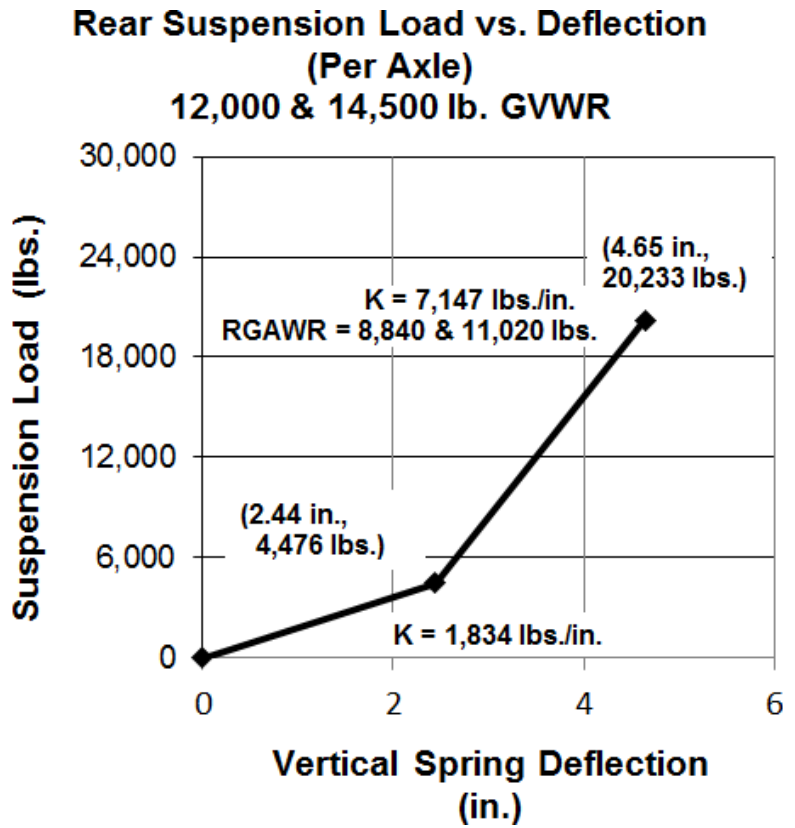


Figure 40

Suspension Deflection Charts – 5500 HG Gas

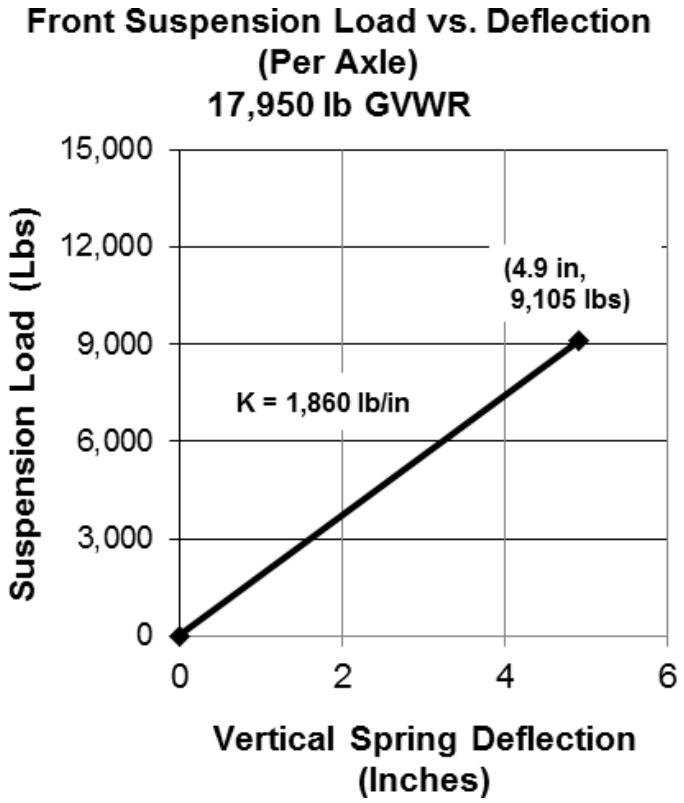


Figure 41

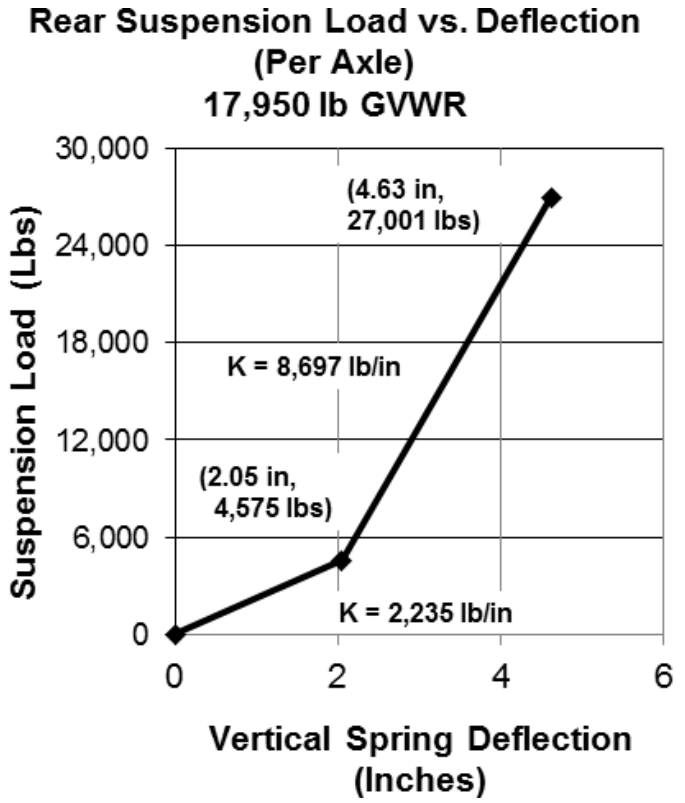


Figure 42

Suspension Deflection Charts – 5500 XG Gas

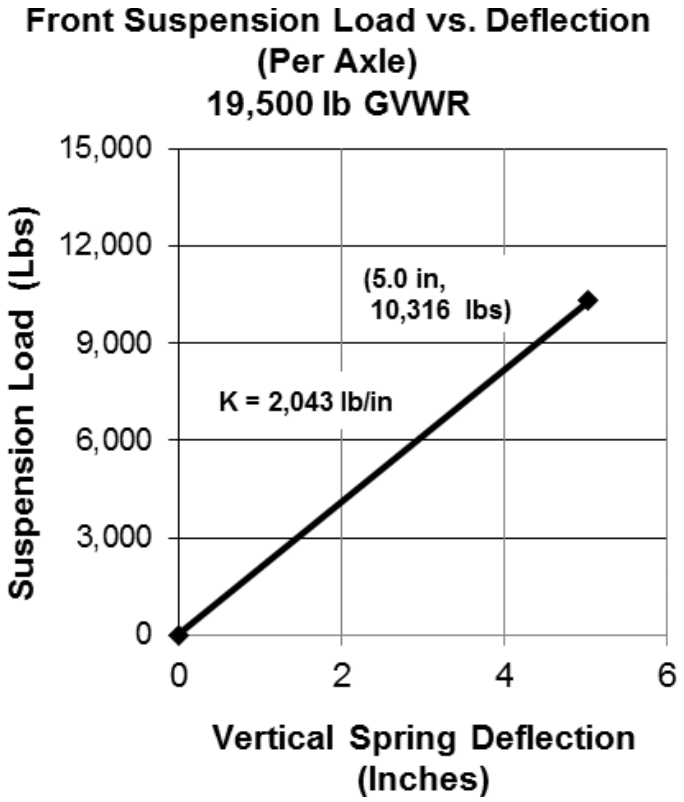


Figure 43

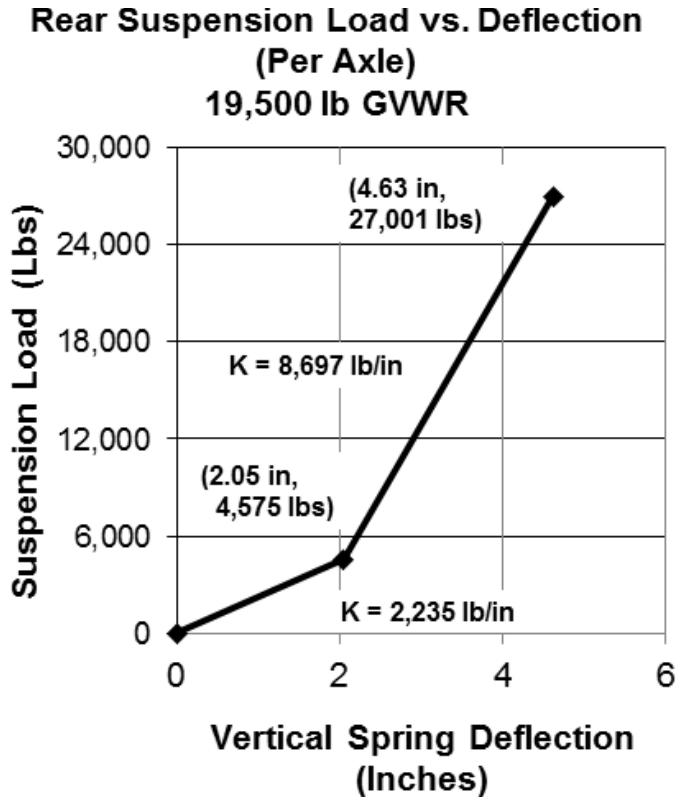


Figure 44

Tire and Disc Wheel Chart

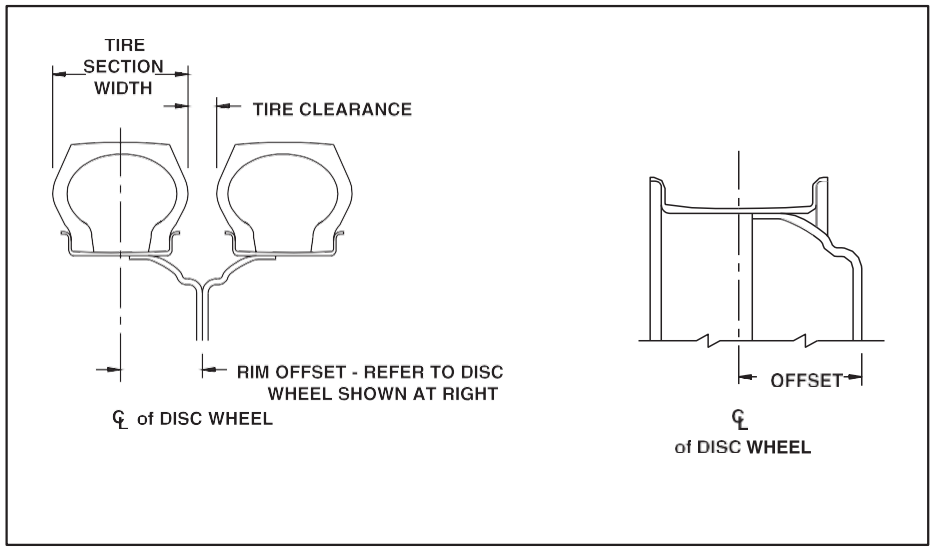
Tire

Model	GVWR (lb.)	Manufacturer Model	Tire Size	Cold Inflation Pressure (psi)	Max Load Per Tire (lb.)		Max Tire Load Limits		Tire Radius (in.)		Loaded Tire Section Width	Tire Clearance (in.)	Design Rim Width (in)
					Single Tire	Dual Tire	Front	Rear	Loaded	Unloaded			
3500 HG	12,000	Yokohama TY213B	215/85R 16-E	70	2430	2210	4860	8840	14.1	14.6	8.5	1.5	6.0
4500 HG	14,500	Goodyear G467	225/70R 19.5-G	85	3315	3115	6630	12460	14.9	16	9	1.1	6.0
		Goodyear Fuel Max							15	16.1	9.6	1.1	6.0
5500 HG	17,950	Yokohama TY213B Dunlop ENASAVE SP688A	225/70R 19.5-G	95	3640	3415	7280	13660	15	16.1	9.6	1.1	6.0
5500 XG	19,500			105	3845	3615	7690	14460	14.9	16	9	1	6.0

Disc Wheel

GVWR (lb)	Wheel Size (in)	Bolt Holes	Bolt Circle Diameter (in)	Ft./Rr. Nut Size* (in)	Ft./Rr. Stud Size (in)	Nut Torque Specs.	Inner Circle (in)	Outside Offset (in)	Disc Thickness (in)	Rim Type	Manufacturer Material
12,000	16 X 6 K	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.35	5° DC	Topy Steel
14,500	19.5 X 6 RW	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.37	15° DC	Accuride Steel
17,950	19.5 X 6 RW	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.37	15° DC	Accuride Steel
19,500											

*O.D. Wrench Size

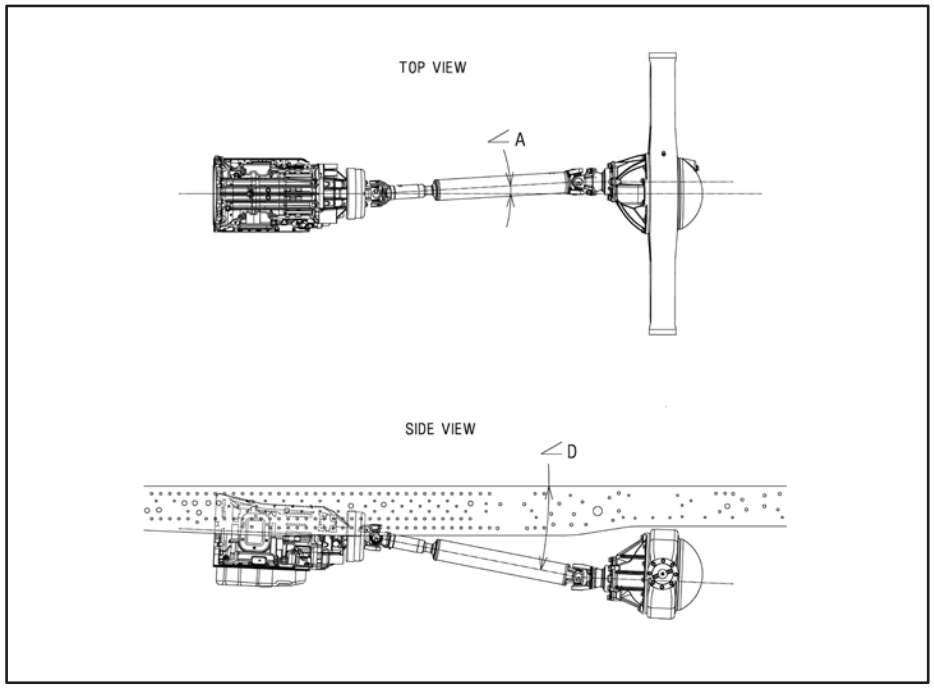


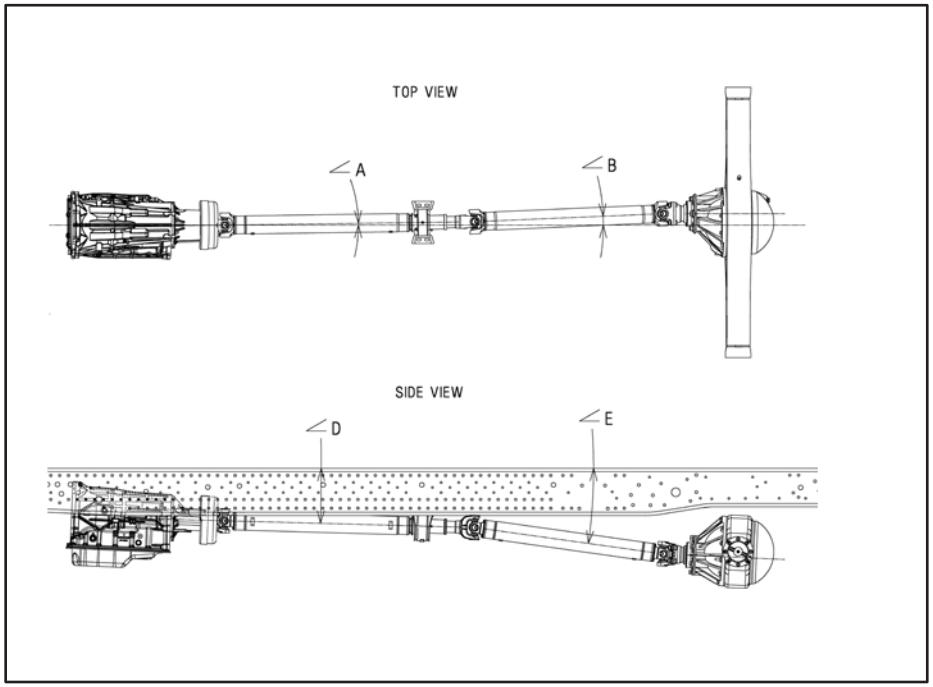
Dimensions in inches

Figure 45

2025 Chevrolet Low Cab Forward

Propeller Shaft – 3500 HG / 4500 HG





Wheelbase (in.)	Top View		Side View			
	∠A	∠B	∠D	∠E	Trans	Rear Axle
109	3.2º	-	9.1º	-	2.5º	2.5º
132.5	1.5º	2.3º	3.0º	7.7º	2.5º	2.5º
150	0.8º	2.5º	1.5º	8.0º	2.5º	2.5º
176	0.6º	1.7º	2.0º	4.5º	2.5º	2.5º

Figure 46

NOTE: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
2. Driveline angles are based on the chassis curb weight which includes standard equipment, fuel but no driver, body or payload.

Propeller Shaft – 3500 HG / 4500 HG

Wheelbase	109	132.5	150	176
No. of Shafts	1	2	2	2
Trans. Type	A/T	A/T	A/T	A/T
Shaft #1 O.D. (Inches)	3.25			
Thickness (Inches)	0.0906			
L (Inches)	35.51	21.73	35.91	46.54
Type	A	B	B	B
Shaft #2 O.D. (Inches)	3.25			
Thickness (Inches)	0.0906			
L (Inches)	N/A	31.38	34.92	50.08
Type	N/A	C	C	C

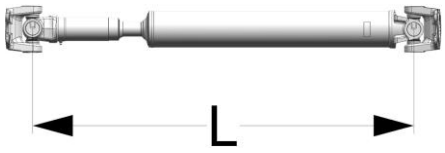
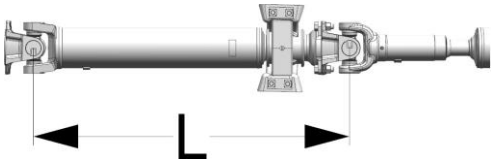
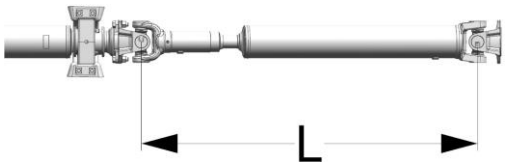
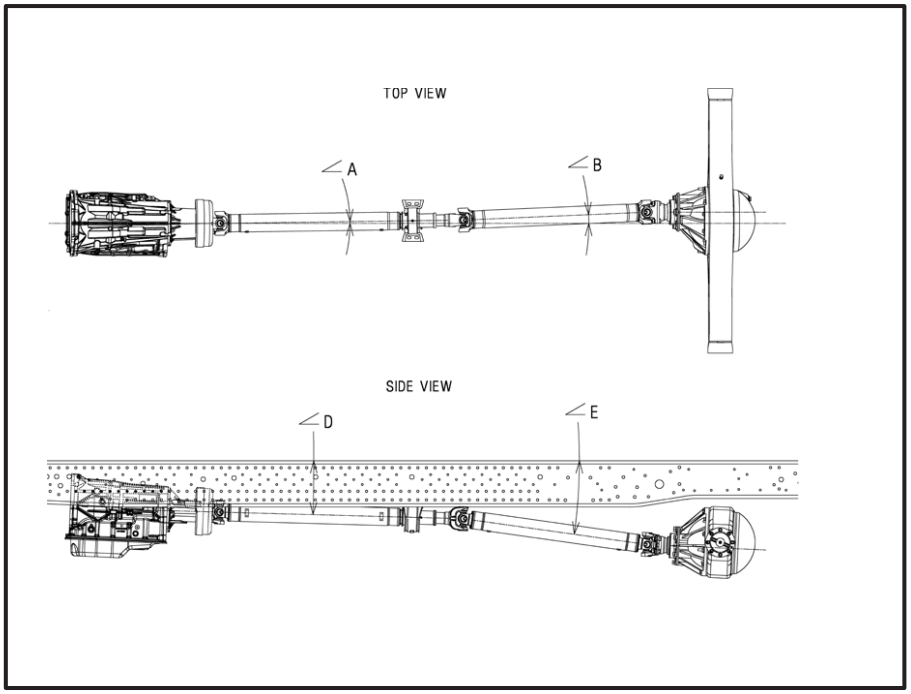
Type	Description	Illustration
Type **A**	1st shaft in 1-piece driveline	
Type **B**	1st shaft in 2-piece driveline	
Type **C**	2nd shaft in 2-piece driveline	

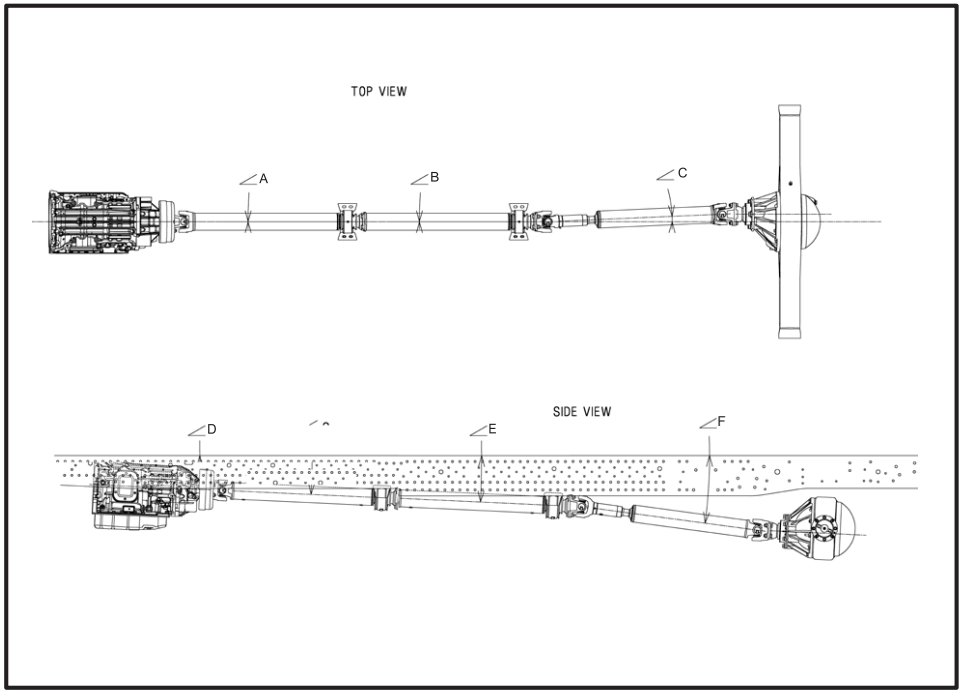
Figure 47

Dimensions in inches

2025 Chevrolet Low Cab Forward

Propeller Shafts – 5500 HG / 5500 XG





Wheelbase	Top View (degrees)			Side View (degrees)				
(in.)	∠A	∠B	∠C	∠D	∠E	∠F	Trans	Rear Axle
132.5	1.5	3.0	-	3.7	7.5	-	2.5	2.5
150	0.8	3.1	-	2.8	6.6	-	2.5	2.5
176	0.6	2.2	-	2.0	4.8	-	2.5	2.5

Figure 48

NOTE: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
2. Driveline angles are based on the chassis curb weight which includes standard equipment, fuel but no driver, body or payload.

2025 Chevrolet Low Cab Forward

Propeller Shaft – 5500 HG / 5500 XG

5500 HG & 5500 XG GAS STANDARD CAB			
Wheelbase	132.5	150	176
No. of Shafts	2	2	2
Shaft #1 O.D.	3.54	3.54	3.54
Thickness	0.126	0.126	0.126
Length	23.90	41.02	51.85
Type	D	D	D
Shaft #2 O.D.	3.54	3.54	3.54
Thickness	0.126	0.126	0.126
Length	36.01	36.54	51.60
Type	A	A	A

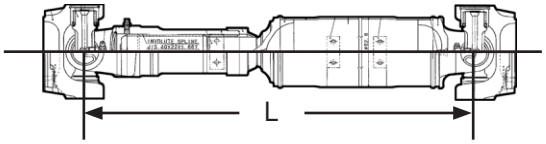
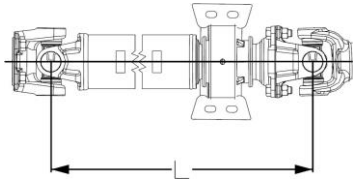
Type	Description	Illustration
Type **A**	2nd shaft in 2 piece driveline.	
Type **D**	1st shaft in 2 piece driveline.	

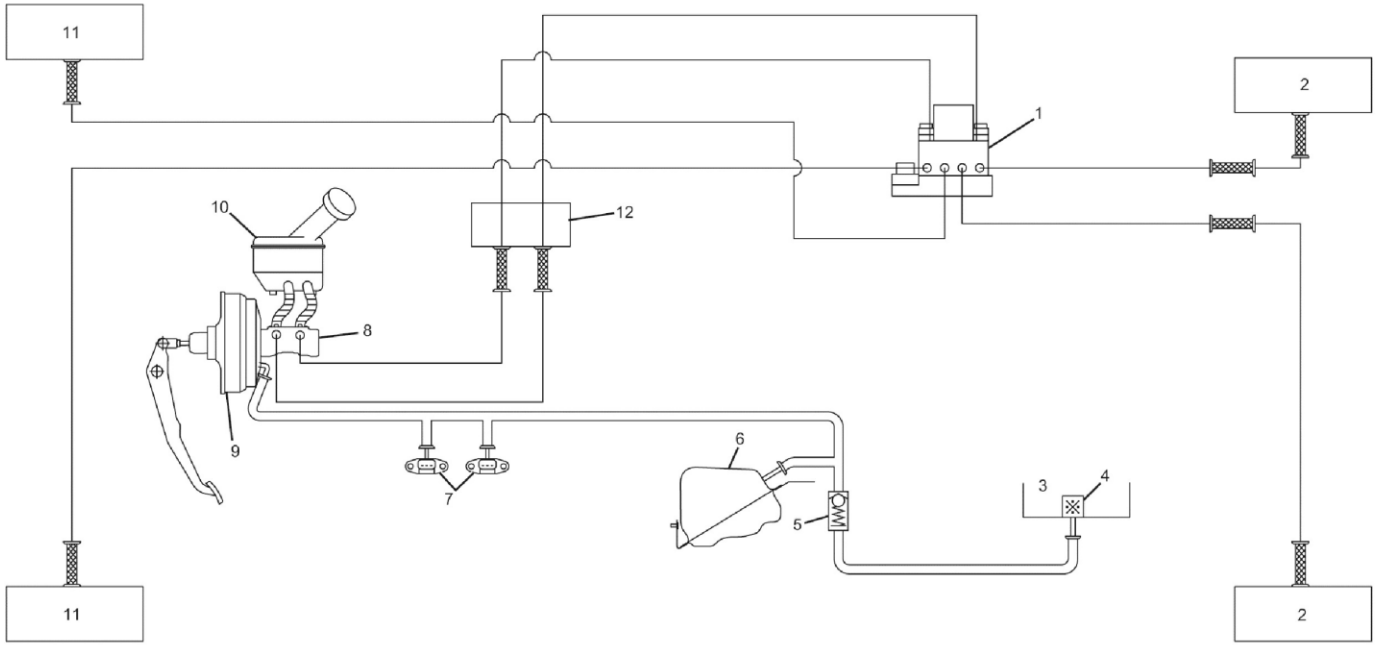
Figure 49

Dimensions in inches

Brake System Diagram – 3500 HG / 4500 HG

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.



Legend

(1) Electronic Hydraulic Control Unit (EHCU)
(2) Rear Brake
(3) Vacuum Pump
(4) Check Valve
(5) Check Valve (One-way Valve)
(6) Vacuum Tank
(7) Vacuum Sensor
(8) Vacuum Booster (Servo Unit)
(9) Master Cylinder
(10) Brake Fluid Reservoir
(11) Front Brake
(12) 4-way Connector

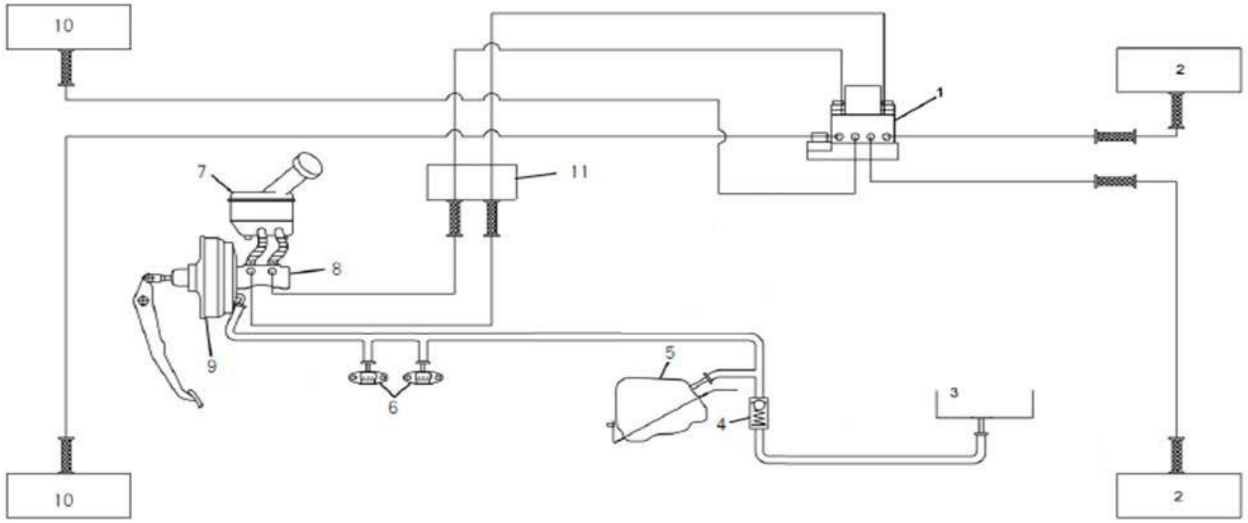
Figure 50

Brake System Diagram – 5500 HG / 5500 XG

Vacuum Plus Power Assist

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.

Legend	
1	EHCU
2	Rear brake
3	Vacuum pump
4	Check valve
5	Vacuum tank
6	Vacuum sensor
7	Brake fluid tank
8	Master cylinder
9	Vacuum brake booster (servo unit)
10	Front brake
11	4-way connector



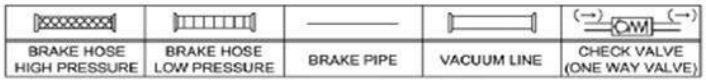
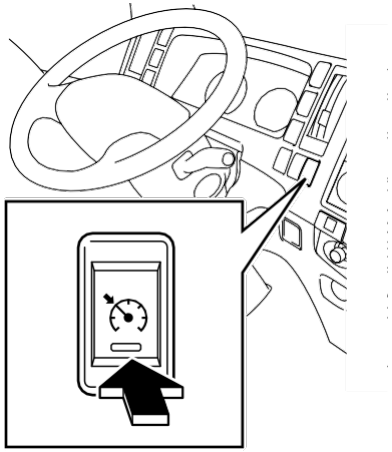


Figure 51

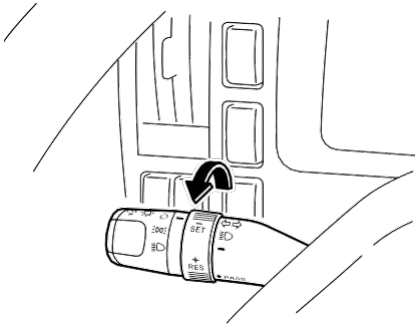
High Idle Mode

Use high idle mode to increase engine idle speed to 1,200 r/min when the vehicle is stationary.

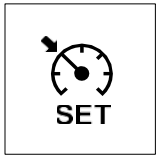
Cruise control main switch



Cruise control set switch



Cruise set indicator light



Activating High Idle Mode

Follow the below procedure to activate the high idle mode.

1. Set the parking brake.
2. Set the selector lever in "P" (Park) or "N" (Neutral) position.
3. Do not depress the brake pedal.
4. Press the cruise control main switch to set it to "ON". At this time, the operation indicating light will turn to green.
5. Turn and hold the cruise control set switch in the "SET" position. After approximately 3 seconds the cruise control set indicator light will begin to flash slowly and the engine idle will increase to 1,200 r/min.

L8T 6.6L FRONT END ACCESSORY DRIVE

The L8T engine's Front End Accessory Drive (FEAD) can mount a range of equipment:

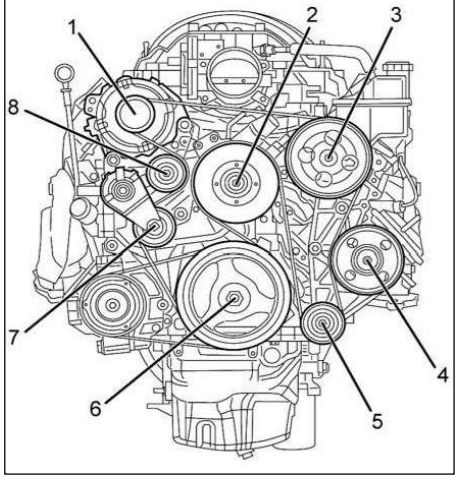
- Additional compressors for an engine driven refrigeration unit or auxiliary HVAC system.
- Clutch pumps for hydraulicly powered equipment.
- Additional alternator for electrical equipment.

FEAD output for GM L8T 6.6L Gasoline Engine

- 13 hp @ 900 rpm
- 17 hp @ 1200 rpm
- 21 hp @ 1500+ rpm

❖Accompanying aftermarket bracket(s) and a new belt routing design are required for most situations.

L8T FEAD Belt Factory Components



Legend
(1) Generator
(2) Water Pump
(3) Power Steering Pump
(4) Vacuum Pump
(5) Idler Pulley (Lower)
(6) Crankshaft Pulley
(7) Tensioner Pulley
(8) Idler Pulley (Upper)

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	4500 HD
GVWR / GCWR	14,500 lbs./ 20,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	5,360 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	9,880 lbs.
Wheels	16 x 6.0-K 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.
Cab	All steel low cab forward, BBC 65.9 in, 45-degree mechanical tilt with torsion assist
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	4500 HD CREW
GVWR / GCWR	14,500 lbs./ 20,500 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	5,360 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	9,880 lbs.
Wheels	16 x 6.0-K 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 44,000 psi section modulus 11.89 cubic in, RBM 523,160 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	4500 XD
GVWR / GCWR	16,000 lbs./ 22,000 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	11,020 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5 F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.
Cab	All steel low cab forward, BBC 65.9 in, 45-degree mechanical tilt with torsion assist
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	4500 XD CREW
GVWR / GCWR	16,000 lbs./ 22,000 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	11,020 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 11.89 cubic in, RBM 523,160 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 XD DERATE
GVWR / GCWR	17,950 lbs./ 23,950 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.. 200 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	12,980 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.
Cab	All steel low cab forward, BBC 65.9 in, 45-degree mechanical tilt with torsion assist
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 XD DERATE CREW
GVWR / GCWR	17,950 lbs./ 23,950 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	12,980 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 11.89 cubic in, RBM 523,160 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 XD
GVWR / GCWR	19,500 lbs./ 25,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.. 200 in., 212 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	7,275 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	13,660 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.
Cab	All steel low cab forward, BBC 65.9 in, 45-degree mechanical tilt with torsion assist
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	5500 XD CREW
GVWR / GCWR	19,500 lbs./ 25,500 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR) and Adaptive Cruise Control (ACC).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot “I”-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	7,275 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	13,660 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. The exhaust brake is standard and is vacuum operated. Four-channel antilock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 11.89 cubic in, RBM 523,160 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray and blue cross-pattern TRICOT breathable cloth covered high back driver’s seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 13 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions, and Ratings

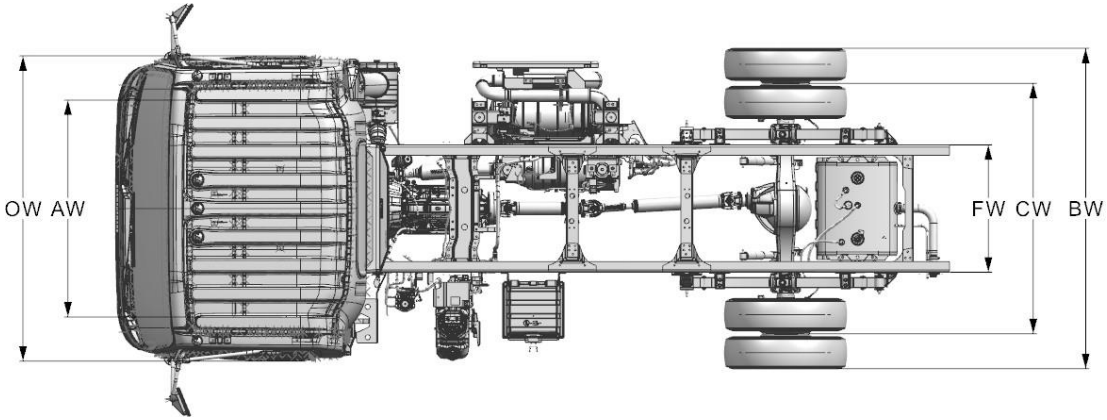


Figure 1

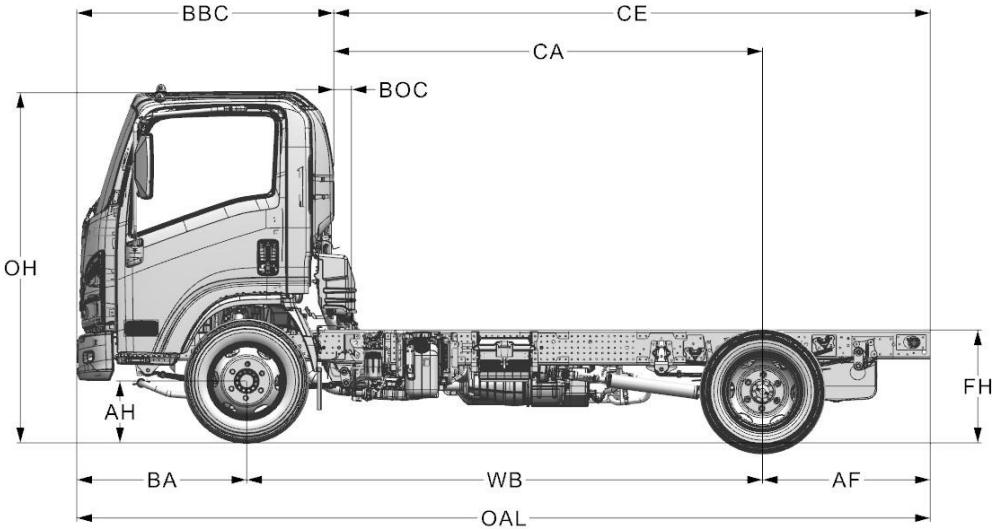


Figure 2

Dimension Constants:

Code	Inches	Code	Inches
AH	7.5	BW	83.3
AW	65.6	CW	65
BA	43.5	FW	33.5
BBC	65.9	OH (16" Tire)	91.3
BOC	7.7	OH (19.5" Tire)	92.9
FH (16" Tire)	31.6	OW	81.3
FH (19.5" Tire)	33.5		

Variable Chassis Dimensions:

Unit	WB	CA*	CE*	OAL	AF
inch	109.0	86.5	129.6	195.7	43.1
inch	132.5	110.0	153.1	219.2	43.1
inch	150.0	127.5	170.6	236.7	43.1
inch	176.0	153.5	196.6	262.7	43.1
inch	200.0[1]	177.5	220.6	286.7	43.1
inch	212.0[2]	189.5	232.6	298.7	43.1

* Effective CA & CE are CA/CE less BOC.

Vertical Exhaust Option Dimensions

Variable Chassis Dimensions:

Unit	WB	EFF CA*	EFF CE*	OAL	AF
inch	109.0	62.5	105.6	195.7	43.1
inch	132.5	86.0	153.1	219.2	43.1
inch	150.0	103.5	146.6	236.7	43.1
inch	176.0	129.5	172.6	262.7	43.1
inch	200.0[1]	153.5	196.6	286.7	43.1
inch	212.0[2]	165.5	208.6	298.7	43.1

* Effective CA & CE are CA/CE less BOC. BOC = 24 in. for Vertical Exhaust equipped chassis

Note:

[1] - Only available on 5500 XD DERATE & 5500 XD

[2] - Only available on the 5500 XD

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions, and Ratings - Standard Cab

4500 HG:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3F154	109.0	lbs.	3986	2044	6030	8470
3F124	109.0	lbs.	3996	2044	6040	8460
3F254	132.5	lbs.	4070	2030	6100	8400
3F224	132.5	lbs.	4080	2030	6110	8390
3F354	150.0	lbs.	4136	1997	6133	8367
3F324	150.0	lbs.	4146	1997	6143	8357
3F454	176.0	lbs.	4209	1964	6173	8327
3F424	176.0	lbs.	4219	1964	6183	8317

5500 XD DERATE*:

In-Frame Tank Weight and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3U154	109.0	lbs.	4171	2359	6530	11420
3U124	109.0	lbs.	4181	2359	6540	11410
3U254	132.5	lbs.	4257	2355	6612	11338
3U224	132.5	lbs.	4267	2355	6622	11328
3U354	150.0	lbs.	4325	2307	6632	11318
3U324	150.0	lbs.	4335	2307	6642	11308
3U454	176.0	lbs.	4398	2281	6679	11271
3U424	176.0	lbs.	4408	2281	6689	11261

***Note: 5500 XD Derate available through PIO ordering**

4500 XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3Y154	109.0	lbs.	4162	2262	6424	9576
3Y124	109.0	lbs.	4172	2262	6434	9566
3Y254	132.5	lbs.	4246	2251	6497	9503
3Y224	132.5	lbs.	4256	2251	6507	9493
3Y354	150.0	lbs.	4325	2203	6528	9472
3Y324	150.0	lbs.	4335	2203	6538	9462
3Y454	176.0	lbs.	4395	2175	6570	9430
3Y424	176.0	lbs.	4405	2175	6580	9420

5500 XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3U154	109.0	lbs.	4171	2359	6530	12970
3U124	109.0	lbs.	4181	2359	6540	12960
3U254	132.5	lbs.	4257	2355	6612	12888
3U224	132.5	lbs.	4267	2355	6622	12878
3U354	150.0	lbs.	4325	2307	6632	12868
3U324	150.0	lbs.	4335	2307	6642	12858
3U454	176.0	lbs.	4398	2281	6679	12821
3U424	176.0	lbs.	4408	2281	6689	12811

Technical Notes:

Chassis Curb Weight reflects standard equipment and fuel but no driver or payload. Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions, and Ratings

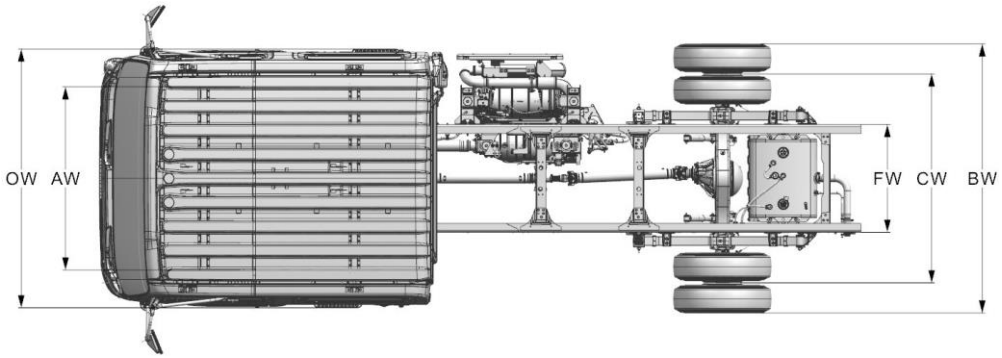


Figure 3

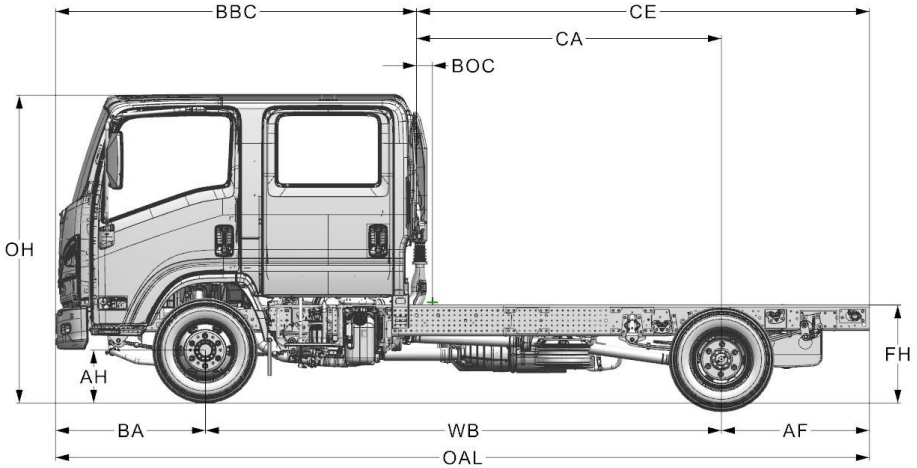


Figure 4

Dimension Constants:

Code	Inches	Code	Inches
AH	7.5	BW	83.3
AW	65.6	CW	65
BA	43.7	FW	33.5
BBC	105.2	OH (16" Tire)	90.5
BOC	5.3	OH (19.5" Tire)	92.4
FH (16" Tire)	31.6	OW	81.3
FH (19.5" Tire)	33.5		

Variable Chassis Dimensions:

Unit	WB	CA*	CE*	OAL	AF
inch	150.0	88.5	131.6	236.7	43.1
inch	176.0	114.5	157.6	262.7	43.1

* Effective CA & CE are CA/CE less BOC

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions, and Ratings - Crew Cab

4500 HG:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3G354	150.0	lbs.	4506	2218	6724	7776
3G324	150.0	lbs.	4516	2218	6734	7766
3G454	176.0	lbs.	4610	2165	6775	7725
3G424	176.0	lbs.	4620	2165	6785	7715

5500 XD DERATE*:

In-Fram Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3V354	150.0	lbs.	4696	2544	7240	10710
3V324	150.0	lbs.	4706	2544	7250	10700
3V454	176.0	lbs.	4810	2481	7291	10659
3V424	176.0	lbs.	4820	2481	7301	10649

***Note: 5500 XD Derate available through PIO ordering**

4500 XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3Z354	150.0	lbs.	4683	2438	7121	8879
3Z324	150.0	lbs.	4693	2438	7131	8869
3Z454	176.0	lbs.	4795	2374	7169	8831
3Z424	176.0	lbs.	4805	2374	7179	8821

5500 XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3V354	150.0	lbs.	4696	2544	7240	12260
3V324	150.0	lbs.	4706	2544	7250	12250
3V454	176.0	lbs.	4810	2481	7291	12209
3V424	176.0	lbs.	4820	2481	7301	12199

Technical Notes:

Chassis Curb Weight reflects standard equipment and fuel but no driver or payload. Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weight Limits and Option Weights

VEHICLE WEIGHT RATINGS				
Description	4500 HG Capacity (lb.)	4500 XD Capacity (lb.)	5500 XD DR Capacity (lb.)	5500 Capacity (lb.)
GVWR Designed Maximum	14,500	16,000	17,950	19,500
GCWR Combined Maximum	20,500	22,000	23,950	25,500
GAWR - Front	5,360	6,630	6,830	7,275
GAWR - Rear	9,880	11,020	12,980	13,660

Options Weights		
RPO[1]	Option Description	Front / Rear (lb)
I6B	AGM batteries (825 CCA x 2)	25 / 22
IF4	Air deflector roof mounted (not available in crew cab)	64 / 0
I1V	Audio system with 7" diagonal color touch screen	2 / 0
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	2 / 2
UZF	Back up alarm	0 / 2
I8T	Chrome grille	1 / 0
I2M	Delete cruise control switch	0 / 0
IY4	Delete standard radio	-3 / 0
IS9	Dual fuel tank - Additional 35 gallon diesel fuel tank mounted on LHS for 150" & 176" wheelbases only [18]	[2]
I79	Engine block heater and oil pan heater with receptacle	4 / 0
I72	Engine block heater with receptacle	2 / 0
IH2	Engine emergency shutdown system HWT, LWL, LOP	0 / 0
IY9	Engine idle shutdown (timer set at 3 minutes for engine shutdown)	0 / 0
I9A	Engine idle shutdown (timer set at 5 minutes for engine shutdown)	0 / 0
IF6	Fire extinguisher and triangle kit mounted in rear organizer	19 / 0
I7F	FMS Jumper Harness	TBD
IZ5	GVWR Derate from 19,500 lbs to 17,950 lbs [21]	0 / 0
I0W	Heated dual remote control mirrors	4 / 0
IS0	Heated mirrors	1 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger, availble on standard cab and front driver and RH passenger seat only crew cab)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only, available on standard cab and front driver seat only of crew cab)	0 / 0
I4K	Keyless entry	3 / 0
I9I	LED Fog Lamps	1 / 0
I8I	LED Tail Light Package	0 / 1
I6K	Lockable DEF fill cap	0 / 0
I5L	Lockable DEF fill cap (all keyed alike on multiple chassis ordered together)	0 / 0
IU2	Mirror bracket for 102'' wide body	1 / 0
IL9	PTO enable switch and engine idle up switch recommended for PTO and idle applications only	1 / 0
IV9	Seat covers crew cab	6 / 0
I1M	Seat covers for suspension seat standard cab	6 / 0
IV8	Seat covers standard cab	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I1L	Speed limited to 58 MPH	0 / 0
I2L	Speed limited to 65 MPH	0 / 0
I3L	Speed limited to 68 MPH	0 / 0
I4L	Speed limited to 70 MPH	0 / 0
I6T	Suspension seat (not available in crew cab)	18 / 0
I0A	Vertical exhaust - Cross rail horizontal DPF/SCR with vertical exhaust	100 / 100

SEO[1]	Option Description	Front / Rear (lb)
54	Standard model specifications with power windows, power door locks and air conditioning	Standard chassis weight includes these features
24	Advanced Driver Assistance System (ADAS)	22 / 0
55	35 Gallon Aluminum LH Side Fuel Tank	[4]
25	35 Gallon Aluminum LH Side Fuel Tank w/ ADAS	[5]
56	55 Gallon Aluminum LH Side Fuel Tank [3]	149 / 43
26	55 Gallon Aluminum LH Side Fuel Tank w/ ADAS [3]	171 / 43

[1] RPO is Regular Production Option that is stocked in port inventory. SEO is Special Equipment Option and requires 90-120 day lead time for delivery.
[2] Weights: 150 wb +77 lbs. front and +171 lbs. rear and 176 wb +89 lbs. front and +159 lbs. rear
[3] 176 inch WB std. cab only
[4] Weights: 150 wb +102 lbs. front and -52 lbs. rear and 176 wb +110 lbs. front and -60 lbs. rear
[5] Weights: 150 wb +124 lbs. front and -52 lbs. rear and 176 wb +132 lbs. front and -60 lbs. rear

2025 Chevrolet Low Cab Forward

Frame and Crossmember Specifications - Standard Cab

Previous Model Year Shown. Update Coming Soon

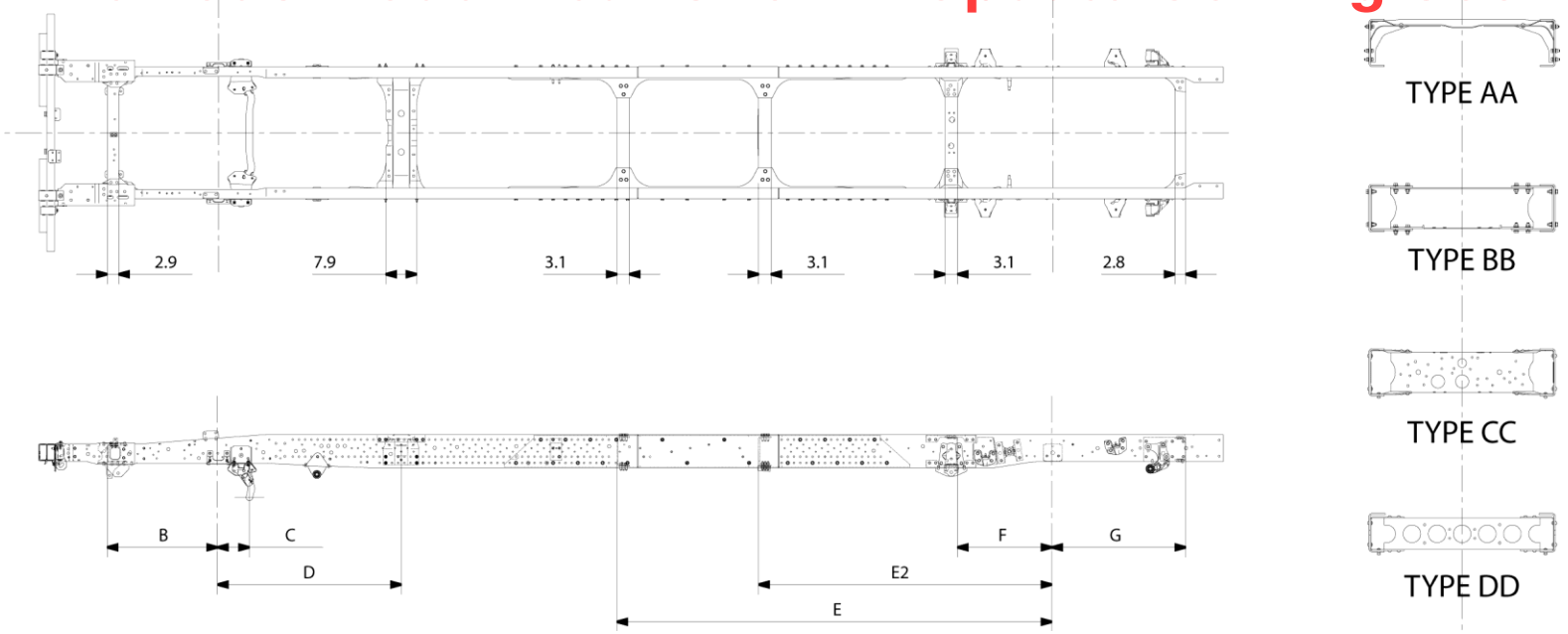


Figure 5

Wheelbase	Frame Thickness	Crossmember Type/Location											
		B	C	D		E		E2		F		G	
109	0.2	28.3	7.9	AA	47.2	-		-		CC	24.2	DD	33.8
132.5	0.2	28.3	7.9	AA	47.2	BB	57.5	-		CC	24.2	DD	33.8
150	0.2	28.3	7.9	AA	47.2	BB	57.9	-		CC	24.2	DD	33.8
176	0.2	28.3	7.9	AA	47.2	BB	74.4	-		CC	24.2	DD	33.8
200[1]	0.2	28.3	7.9	AA	47.2	BB	98.9	BB	74.9	CC	24.2	DD	33.8
212[2]	0.2	28.3	7.9	AA	47.2	BB	110.9	BB	74.9	CC	24.2	DD	33.8

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD

Figure 6

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Frame Chart - Standard Cab

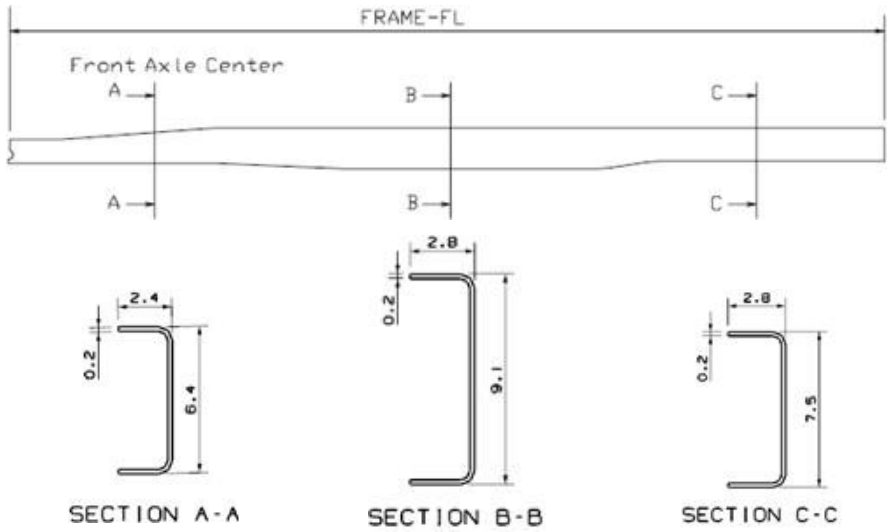


Figure 7

Wheelbase	Frame FL	Frame Thickness
109.0	182.5	0.2
132.5	206.1	0.2
150.0	223.8	0.2
176.0	249.8	0.2
200.0[1]	273.8	0.2
212.0[2]	285.8	0.2

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD

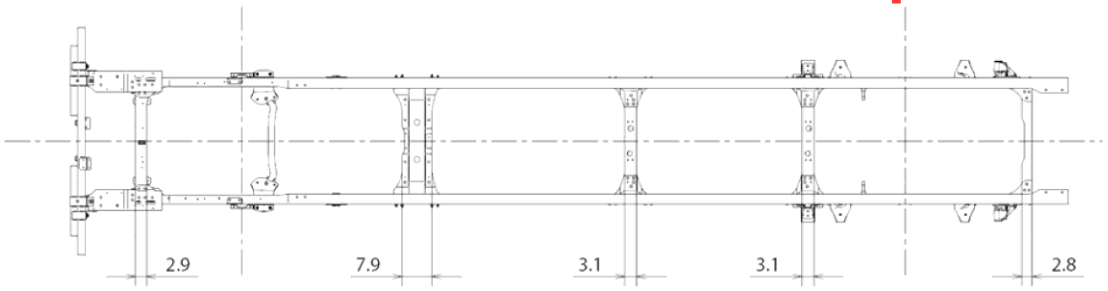
Figure 8

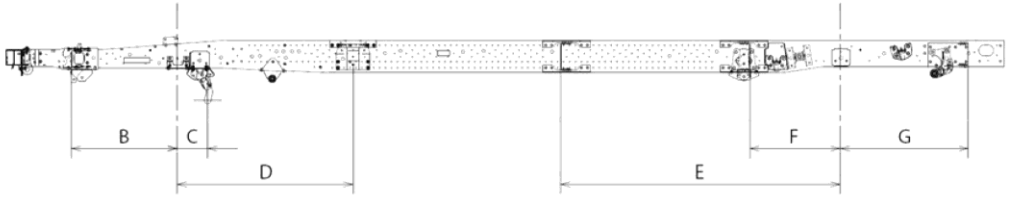
Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Frame and Crossmember Specifications - Crew Cab

Previous Model Year Shown. Update Coming Soon





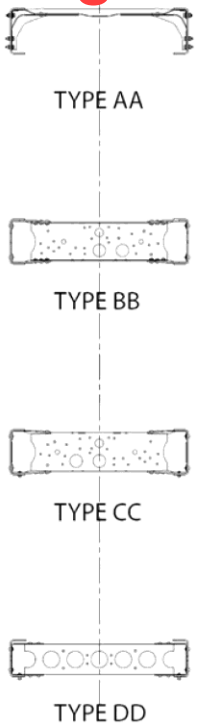


Figure 9

Wheelbase	Frame Thick	Crossmember Type/Location					
		B	C	D	E	F	G
150.0	0.2	28.3	7.9	AA 47.2	BB 57.9	CC 24.2	DD 33.8
176.0	0.2	28.3	7.9	AA 47.2	BB 74.4	CC 24.2	DD 33.8

Figure 10

Note: Dimensions in inches

Frame Chart - Crew Cab

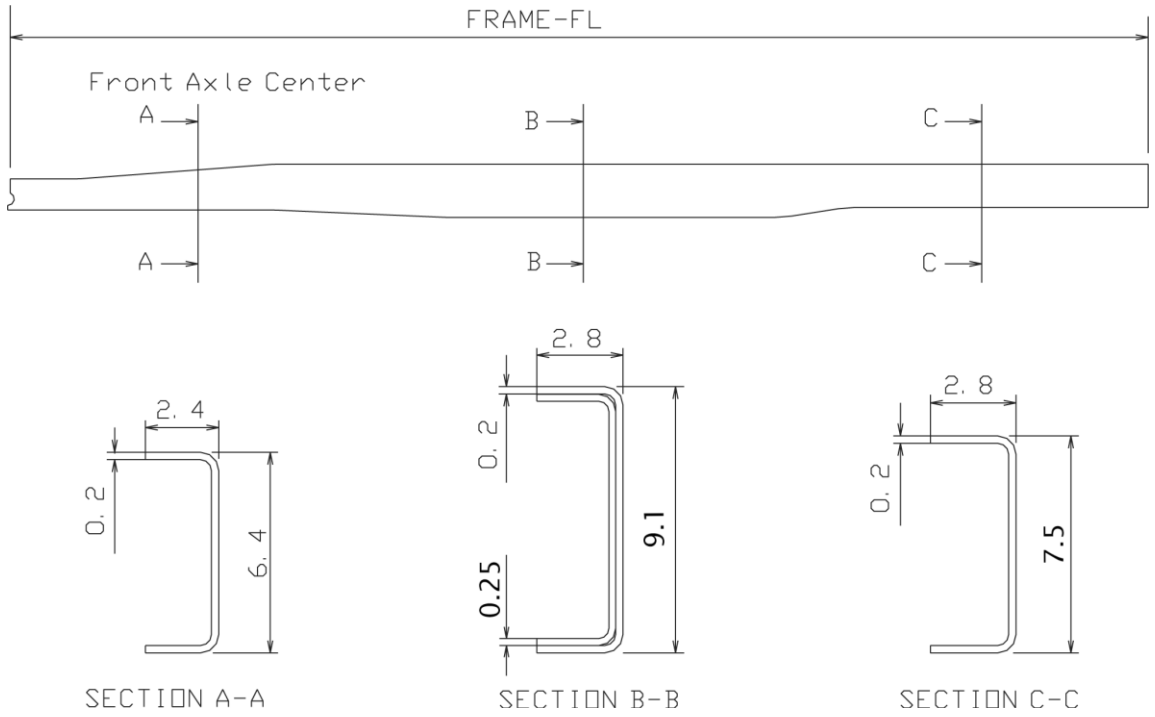


Figure 11

Wheelbase	Frame FL	Frame Thickness
150.0	223.8	0.2
176.0	249.8	0.2

Figure 12

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Diesel Standard Cab - Top View

WB	A	B
109	43.4	80.1
132.5	49.7	84.4
150	43.4	80.1
176	43.4	80.1
200[1]	43.4	80.1
212[2]	43.4	80.1

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD

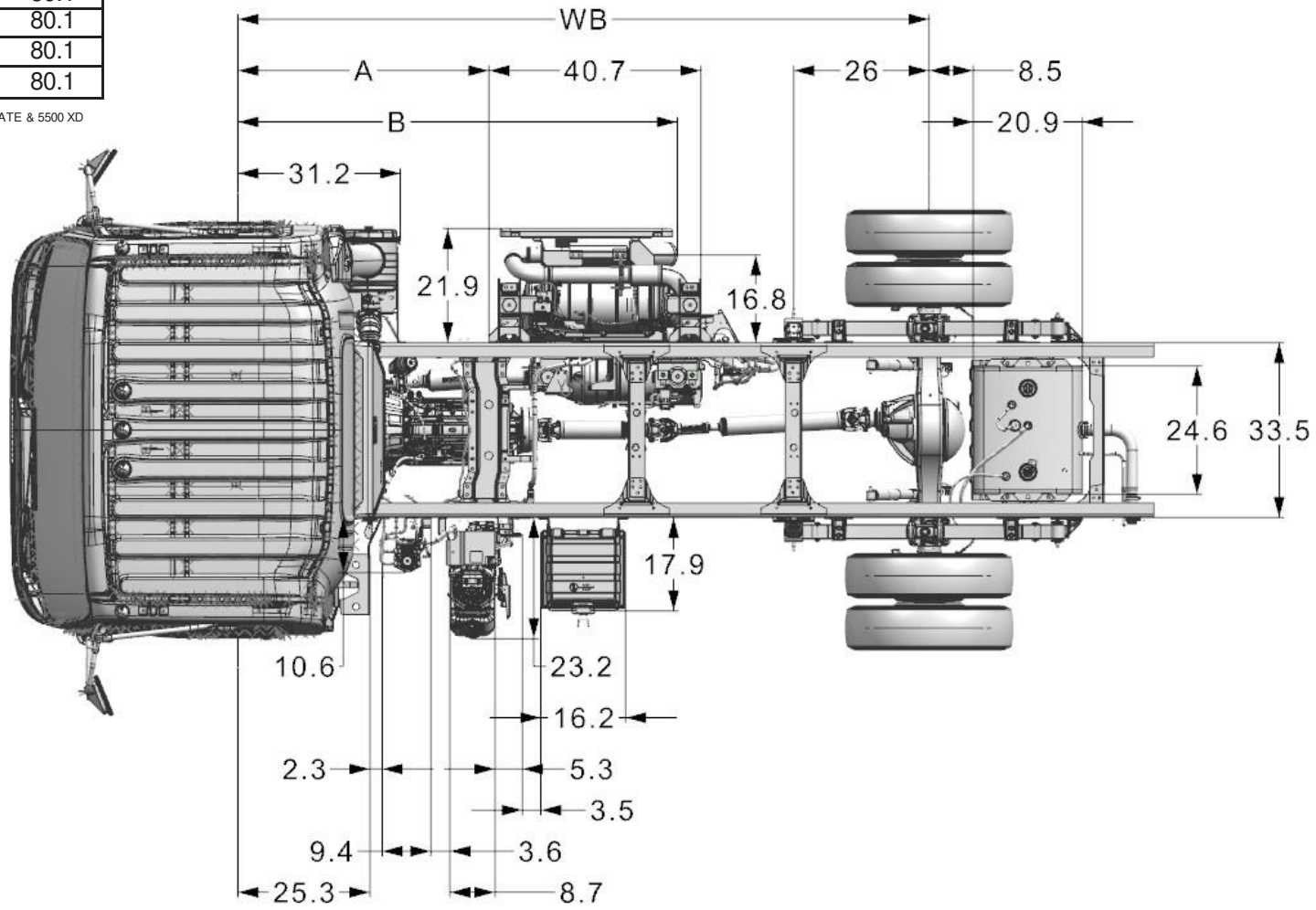


Figure 13

Note: Dimensions in inches

Diesel Standard Cab - Left Side View

WB	A
109	81.6
132.5	87.9
150	81.6
176	81.6
200[1]	81.6
212[2]	81.6

[1] - Only available on NRR DERATE & NRR
[2] - Only available on the NRR

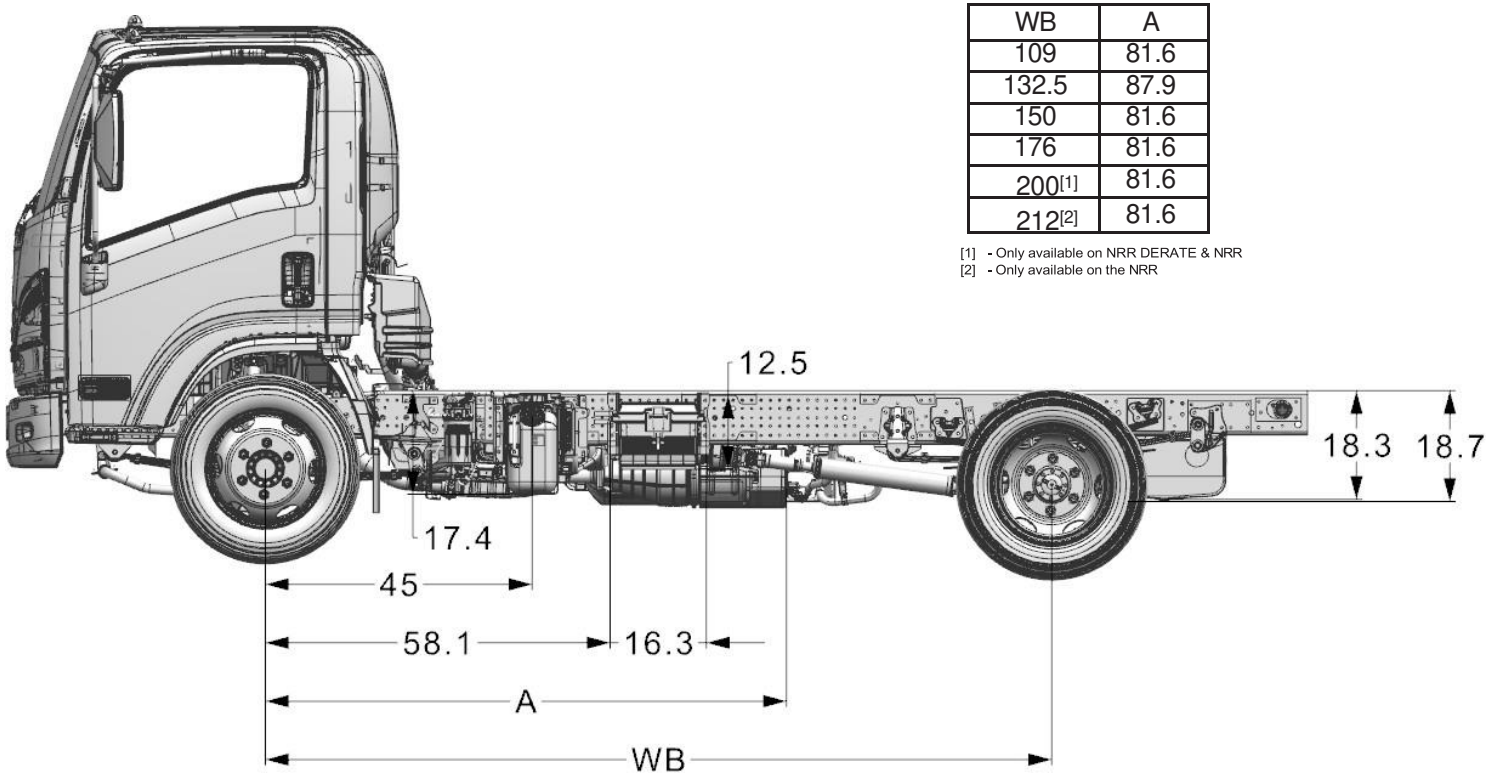


Figure 14

Note: Dimensions in inches

Diesel Standard Cab - Right Side View

WB	A
109	44.0
132.5	50.3
150	44.0
176	44.0
200[1]	44.0
212[2]	44.0

[1] - Only available on NRR DERATE & NRR
[2] - Only available on the NRR

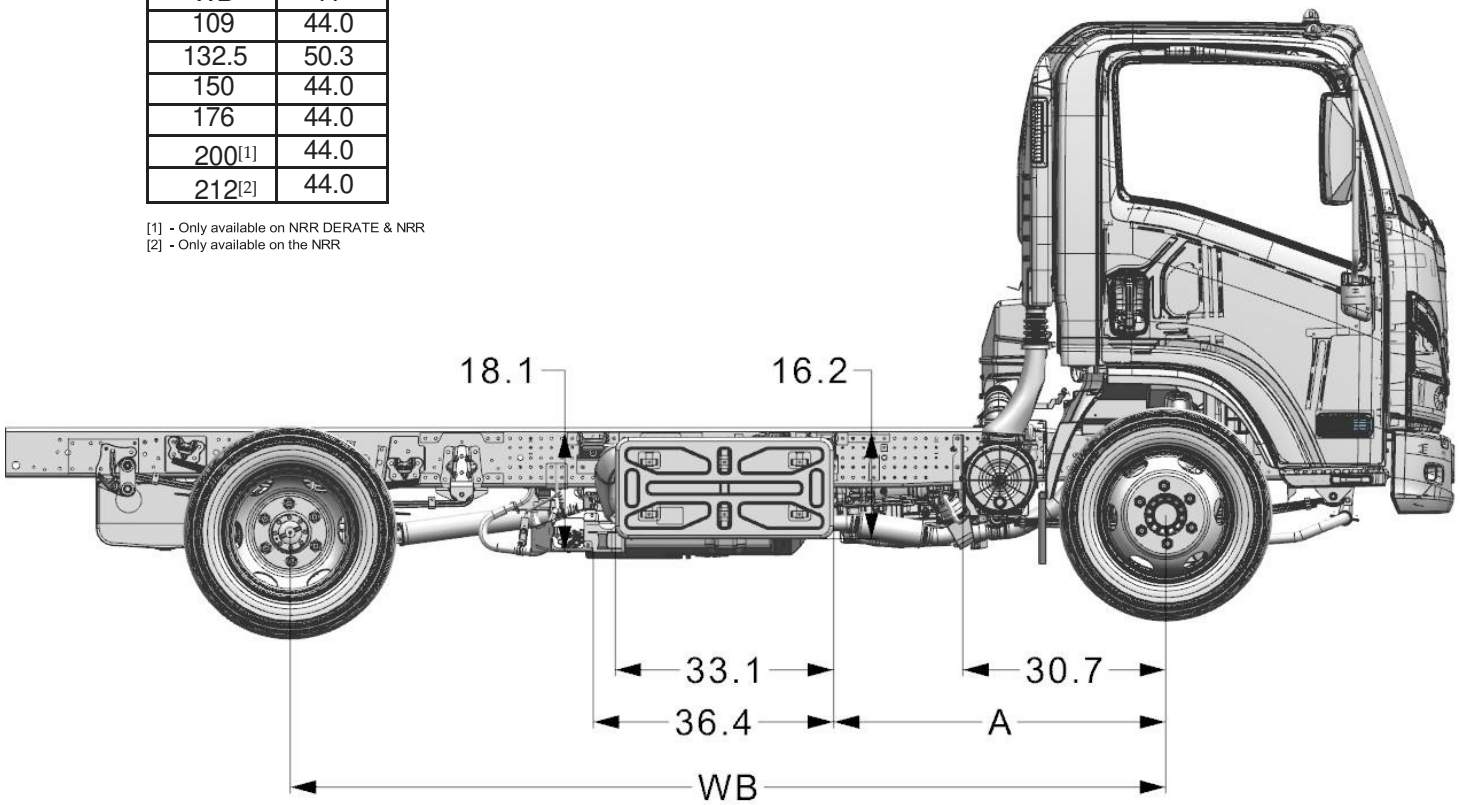


Figure 15

Note: Dimensions in inches

Diesel Crew Cab - Top View

WB	A	B
150	103.7	67.0
176	111.1	76.5

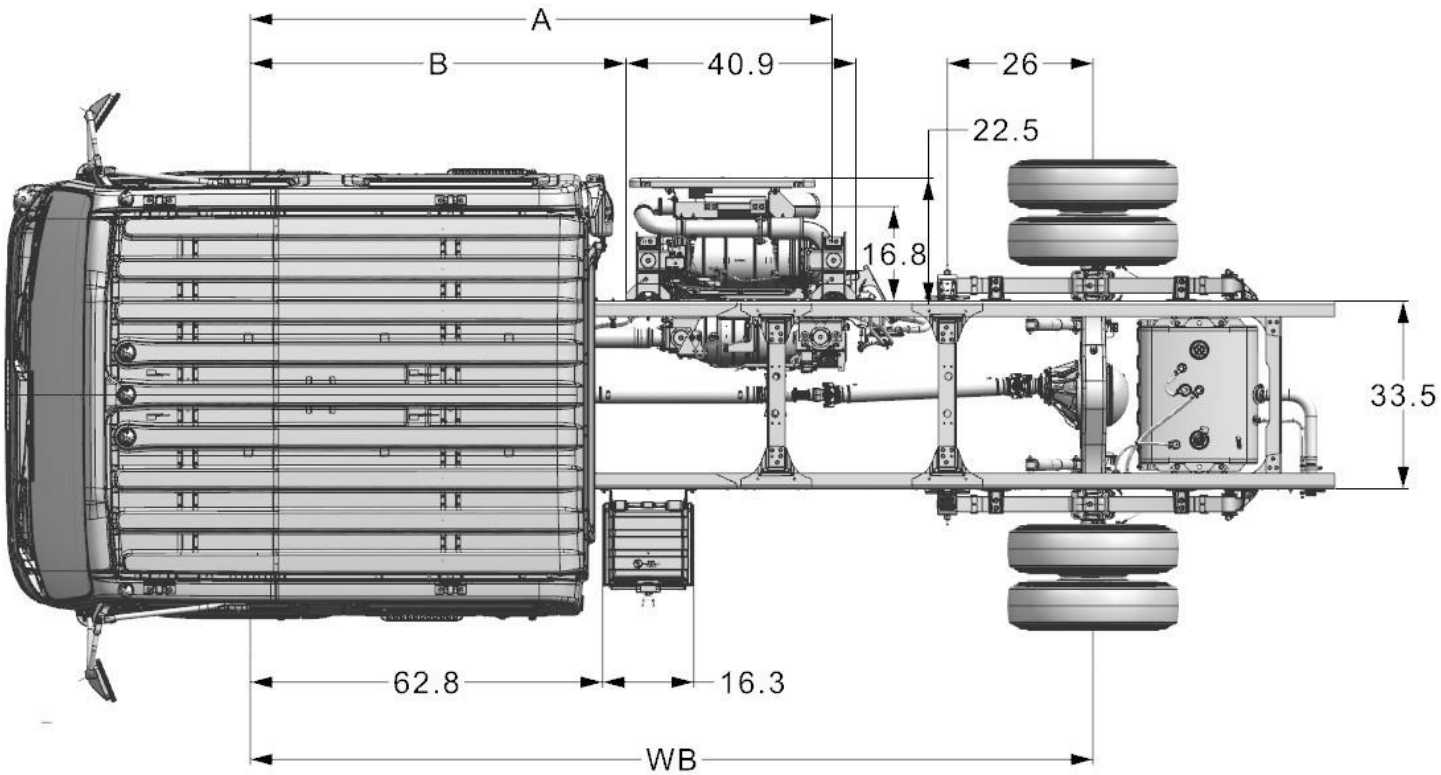


Figure 16

Note: Dimensions in inches

Diesel Crew Cab - Left Side View

WB	A
150	104.3
176	113.8

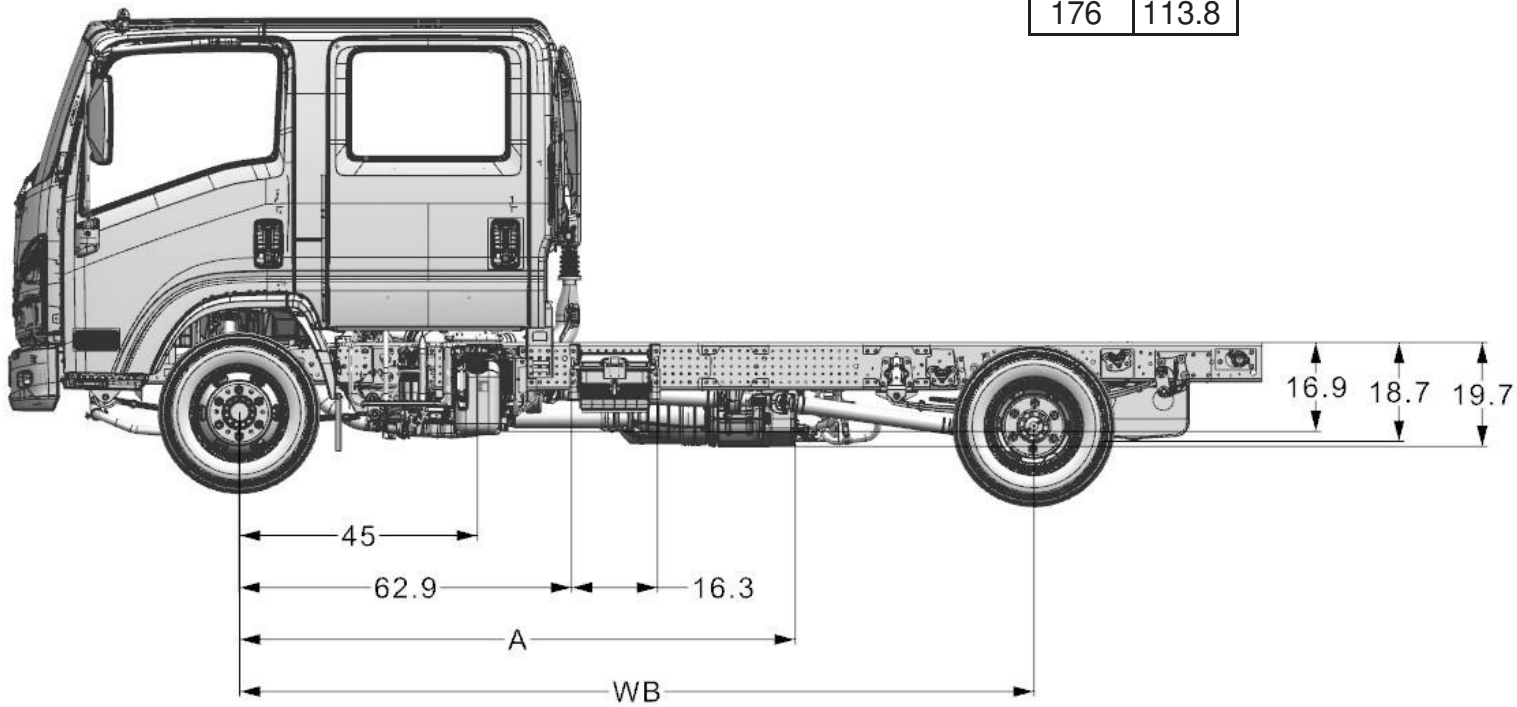


Figure 17

Note: Dimensions in inches

Diesel Crew Cab - Right Side View

WB	A
150	67.6
176	77.1

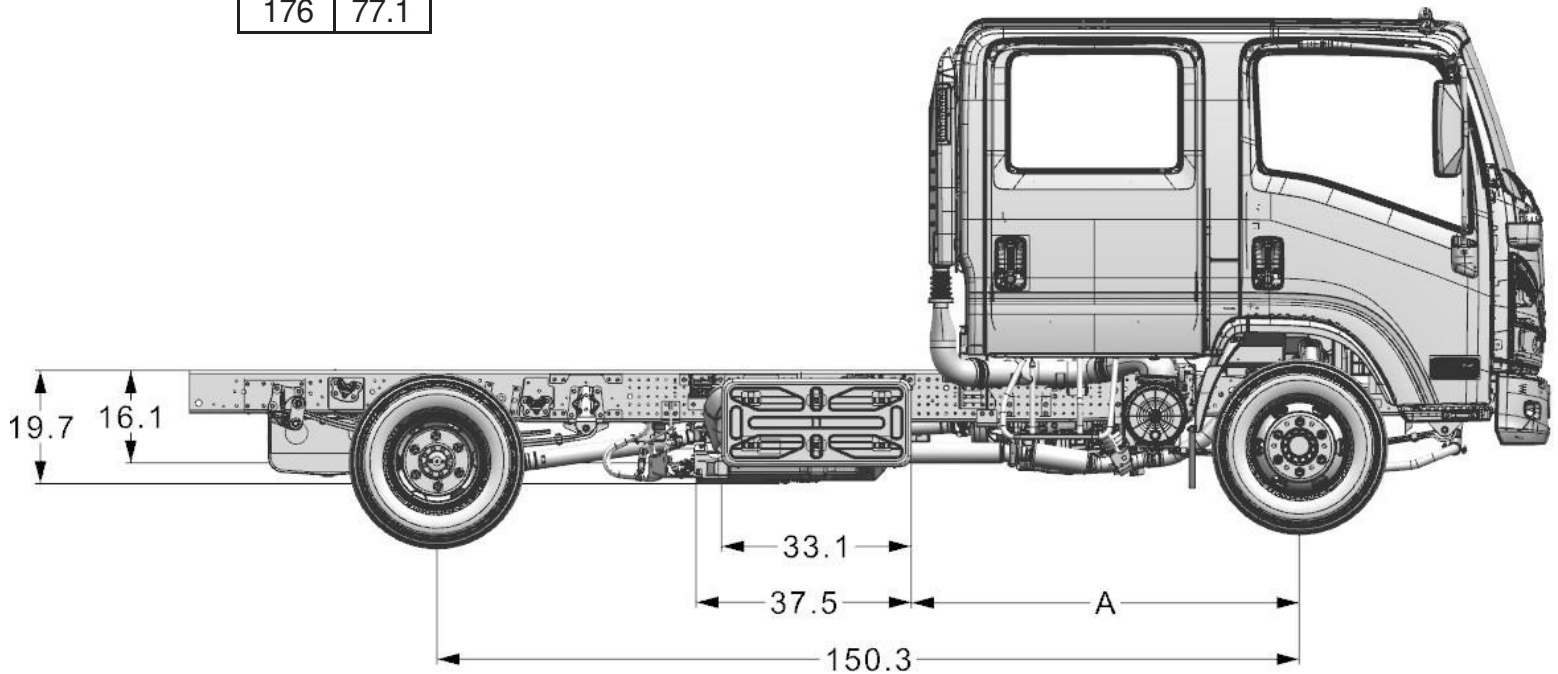


Figure 18

Note: Dimensions in inches

Exhaust System Dimensions
SCR / DPF 4HK1-TC

View from top of chassis

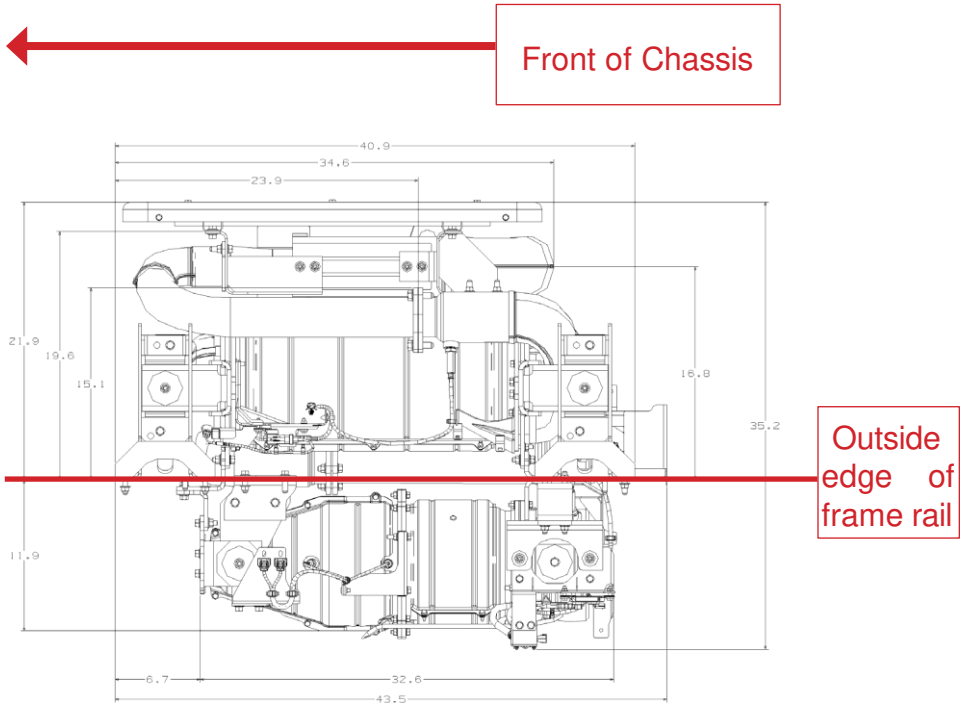


Figure 19

View from front to rear chassis

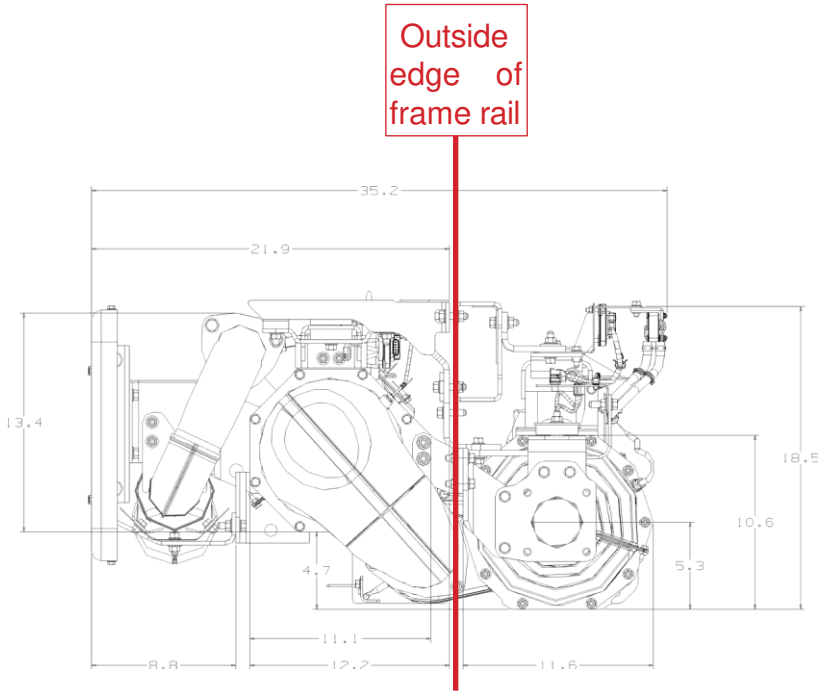


Figure 20

Note: Dimensions in inches

35 Gallon Aluminum Side Mounted Diesel Fuel Tank

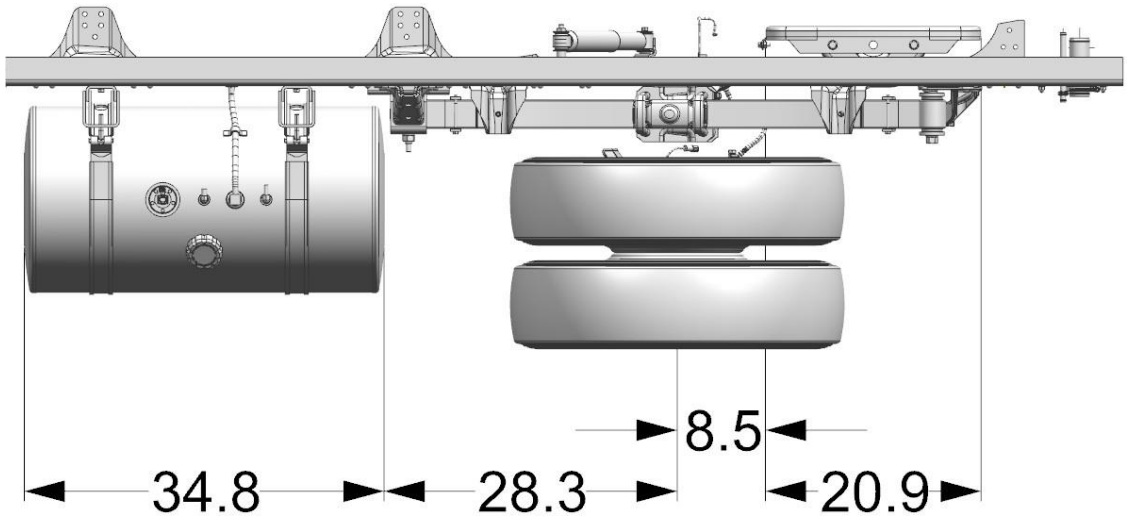


Figure 21

Front of chassis

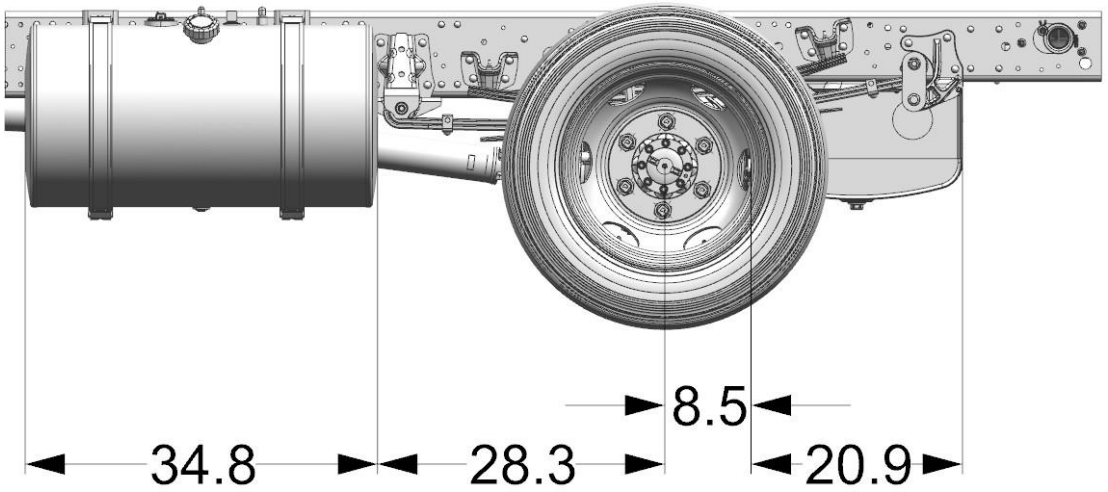


Figure 22

Note: Dimensions in inches

55 Gallon Aluminum Side Mounted Diesel Fuel Tank

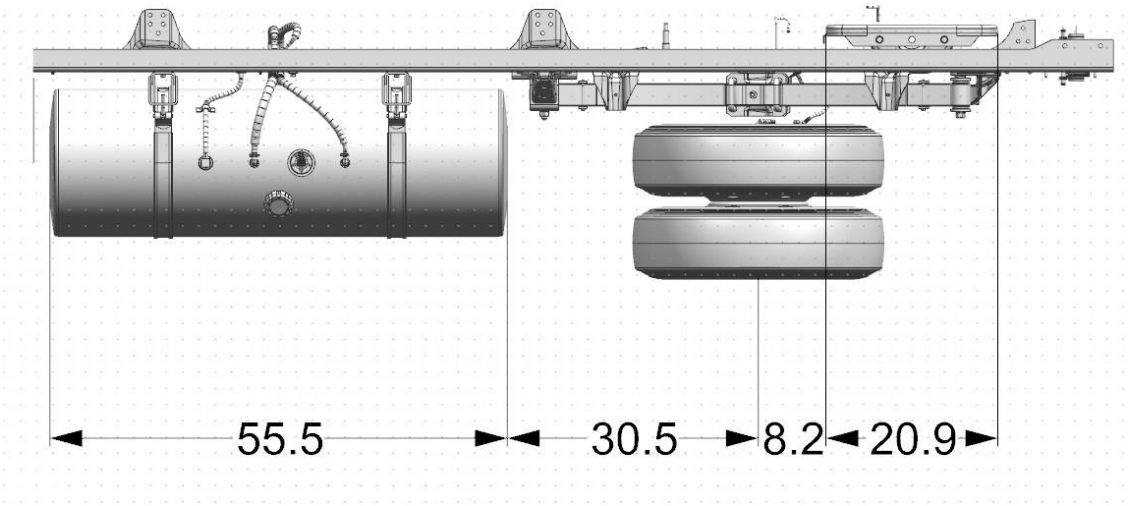


Figure 23

← Front of chassis

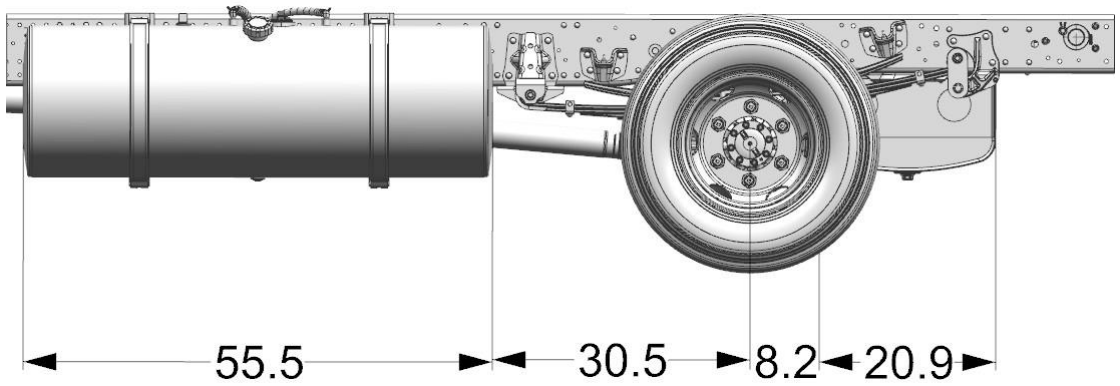


Figure 24

Note: Dimensions in inches

35 and 55 Gallon Side Mounted Fuel Tank Mounting Location and End View Dimensions

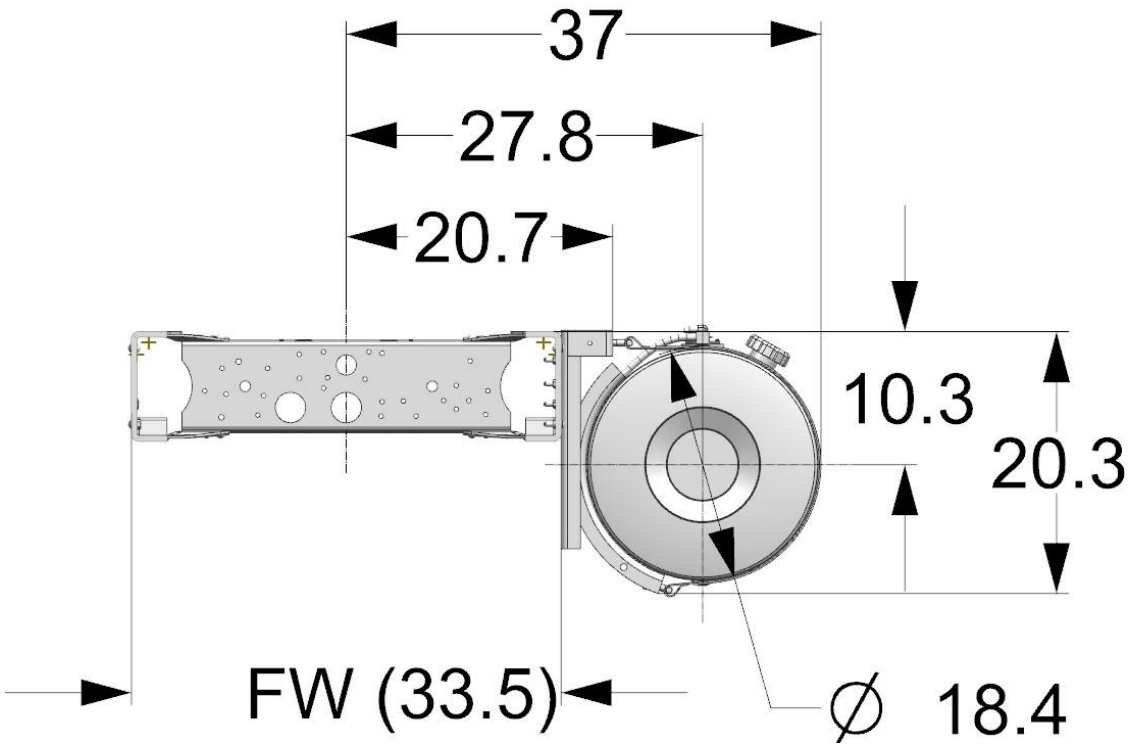


Figure 25

Note: Dimensions in inches

Cab Tilt Diagram

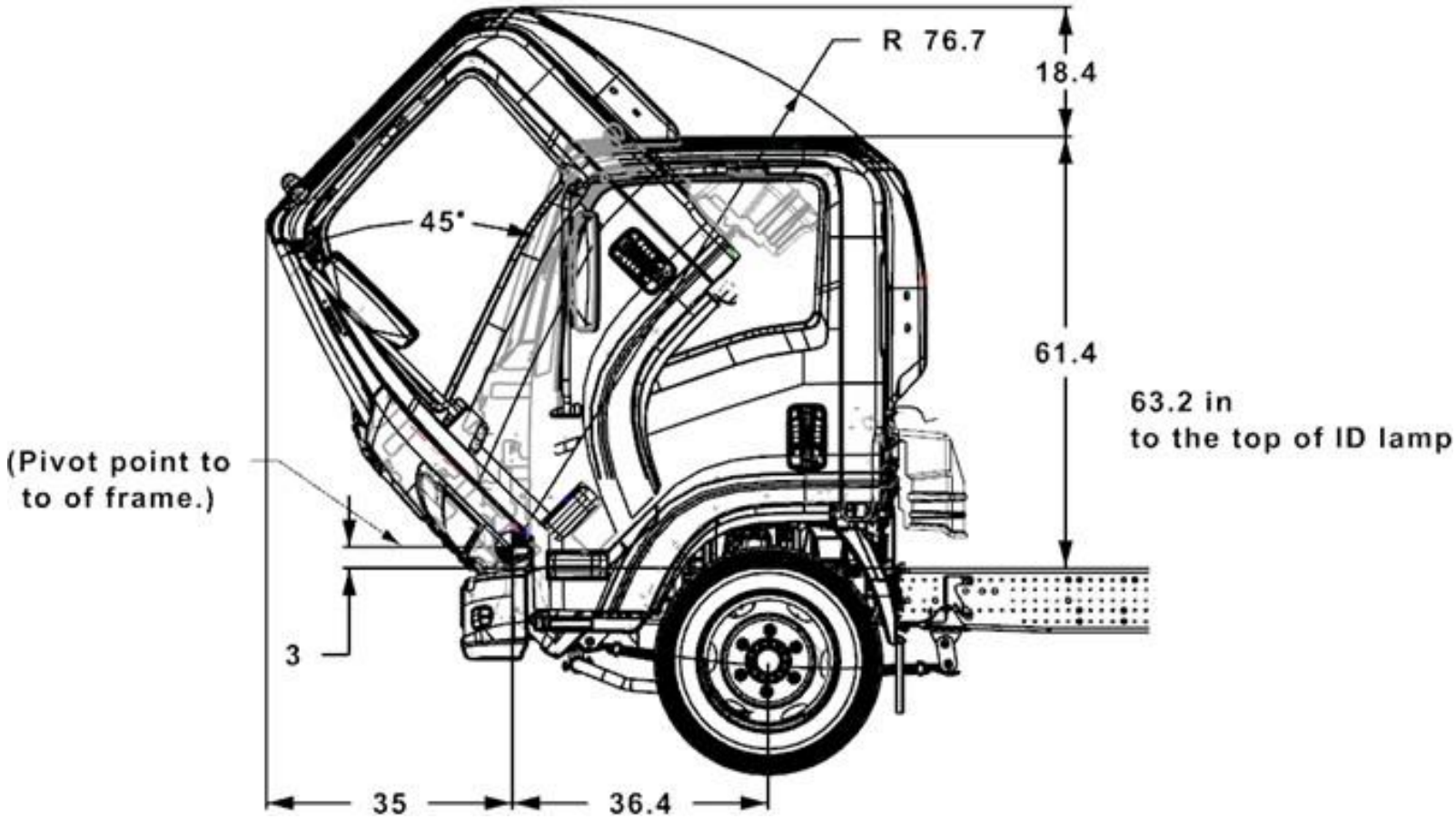


Figure 26

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Turning Diameter

4500 HG (215/85R-16E Tire):

Turning Diameters (design value)

WB	B (ft)	C (ft)
	Curb to Curb	Wall to Wall
109	31.5	37.1
132.5	38.7	44
150[3]	42.7	48.9
176[3]	51.2	56.4

The 4500 HG Diesel steering features a 49.5 degree inside wheel cut angle.

4500 XD, 5500 XD DERATE & 5500 XD (225/70R-19.5F):

Turning Diameters (design value)

WB	B (ft)	C (ft)
	Curb to Curb	Wall to Wall
109	32.8	38.7
132.5	40.0	44.9
150[3]	45.3	50.2
176[3]	52.5	58.1
200[1]	61.0	67.2
212[2]	66.0	73.0

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD
[3] - Applies to both single and crew cab chassis

The 4500 XD, 5500 XD DERATE & 5500 XD Diesel steering features a 46.5 degree inside wheel cut angle.

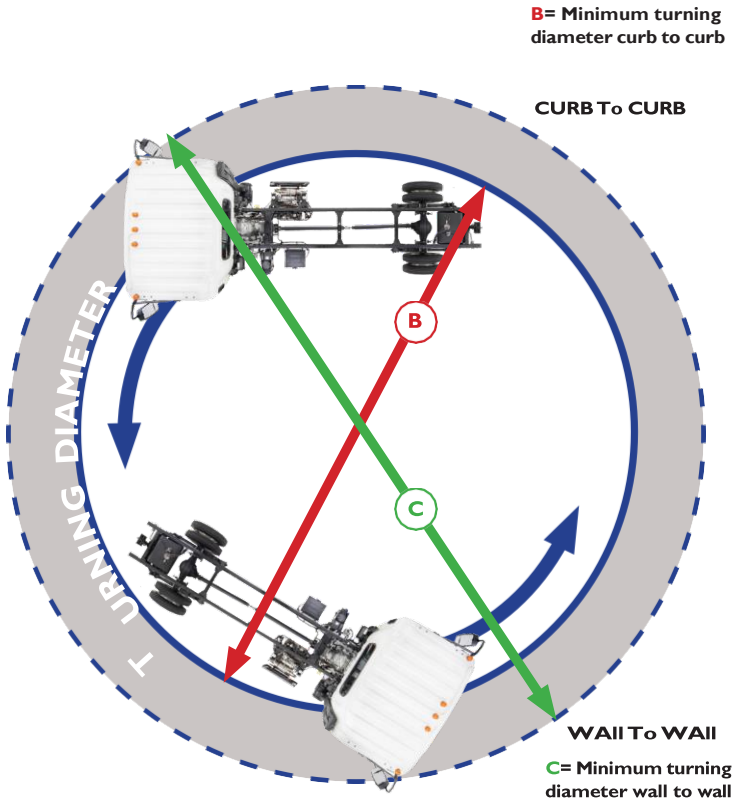


Figure 27

2025 Chevrolet Low Cab Forward

Center of Gravity - STD CAB

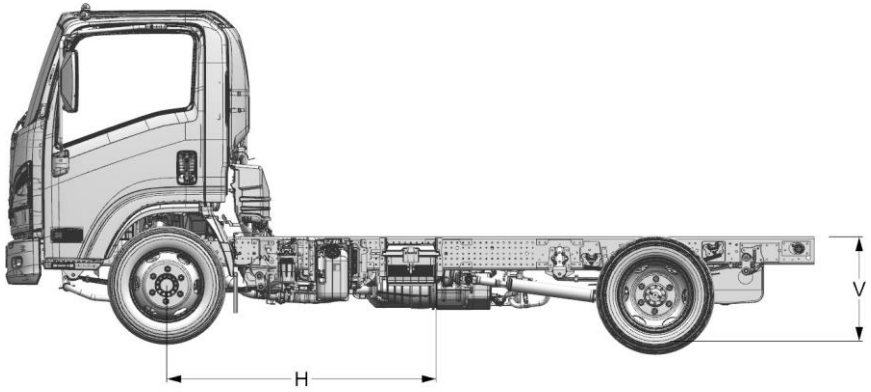


Figure 29

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
4500 HD	109	22.2	36.6	-	-
	132.5	22.1	43.8	-	-
	150	22	48.5	46.8	-
	176	22	55.7	54.0	50.0

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
4500 XD	109	23.5	38.2	-	-
	132.5	23.3	45.7	-	-
	150	23.3	50.8	49.2	-
	176	23.3	58.4	56.4	57.9

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
5500 XD DR	109	23.5	39.2	-	-
	132.5	23.3	47.0	-	-
	150	23.3	52.2	50.6	-
	176	23.3	60.1	58.1	59.5
	200	23.3	62.0	-	-

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
5500 XD	109	23.4	39.2	-	-
	132.5	23.3	47.0	-	-
	150	23.4	52.2	50.7	-
	176	23.4	60.1	58.1	59.6
	200	23.4	62.0	-	-
	212	23.2	62.2	-	-

The center of gravity of the completed vehicle with a full load should not exceed 63 inches above ground level at full GVWR and must be located horizontally between the centerlines of the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Incomplete Vehicle Document and the Body Builders.

The maximum dimensions for a body installed on the LCF chassis are 102 inches wide (outside*) by 91 inches high (inside). If approval is needed for larger body applications, please contact GM Upfitter.

* With 102 inches wide mirror brackets installed in place of standard mirror brackets

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Center of Gravity - Crew Cab

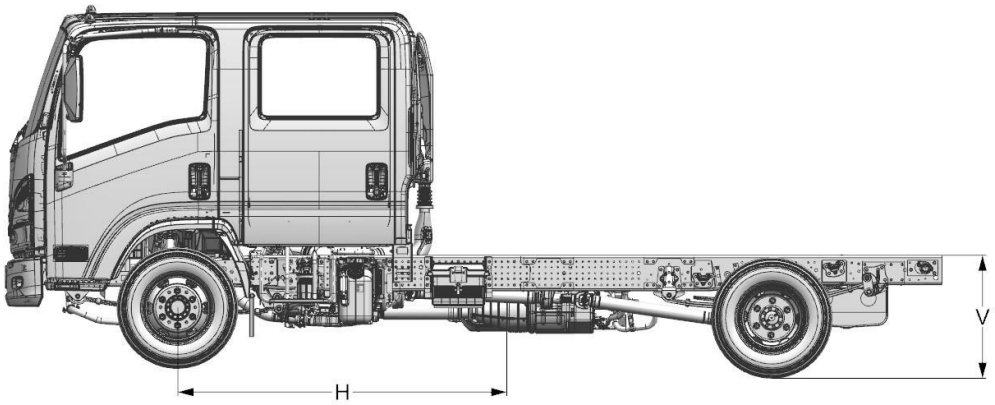


Figure 30

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
4500 HD	150	25.3	49.2	47.7	-
	176	25.2	55.9	53.1	55.5

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
4500 XD	150	25.3	51.2	49.8	-
	176	25.2	58.4	56.5	57.9

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
5500 XD DR	150	25.3	52.5	51.1	-
	176	25.2	59.9	58.1	59.4

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H - In-Frame Fuel Tank	Horizontal CG - H - 35 gal. Side Fuel Tank	Horizontal CG - H - 55 gal. Side Fuel Tank
5500 XD	150	25.3	52.6	51.1	-
	176	25.2	60.0	58.1	59.5

The center of gravity of the completed vehicle with a full load should not exceed 63 inches above ground level at full GVWR and must be located horizontally between the centerlines of the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Incomplete Vehicle Document and the Body Builders.

The maximum dimensions for a body installed on the LCF chassis are 102 inches wide (outside*) by 91 inches high (inside). If approval is needed for larger body applications, please contact GM Upfitter.

Note: Dimensions in inches

* With 102 inches wide mirror brackets installed in place of standard mirror brackets

Front Axle Chart

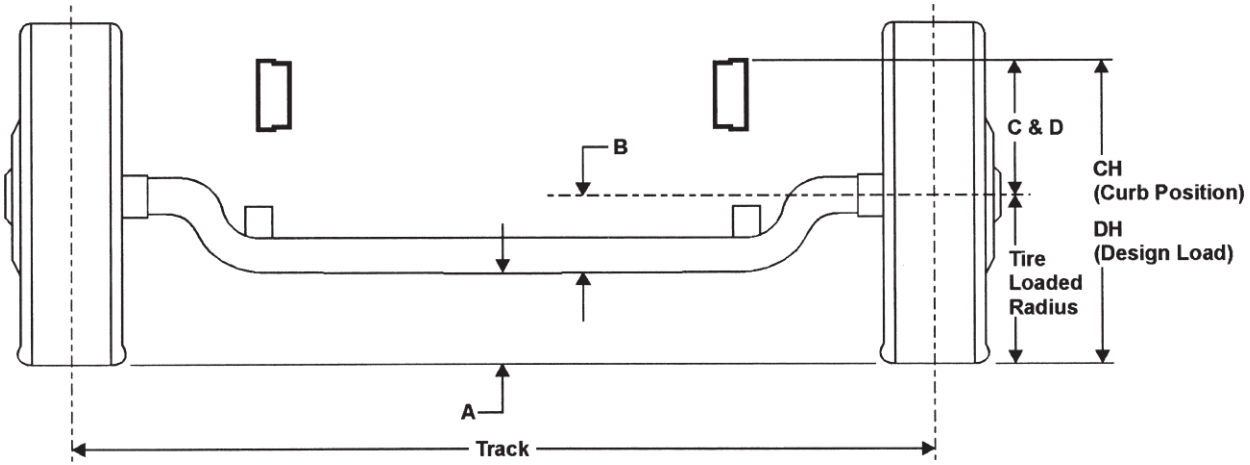


Figure 31

Formulas for calculating height dimensions:

A = Tire Loaded Radius – B
C = *Centerline of Axle to Top of Frame Rail at Curb Position*
D = *Centerline of Axle to Top of Frame Rail at Design Load*
CH = C + Tire Unloaded Radius
DH = D + Tire Loaded Radius

Model	Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
											Unloaded	Loaded
4500 HD	215/85 R 16-E	14,500 lbs.	5,360 lbs.	7.5	6.6	12.8	11.7	27.4	25.8	65.5	14.6	14.1
4500 XD	225/70R 19.5F	16,000 lbs.	6,630 lbs.	8.3	6.6	13	11.5	29	26.4	65.5	16	14.93
5500 XD DERATE	225/70R 19.5F	17,950 lbs.	6,830 lbs.	8.3	6.6	12.3	11.5	28.3	26.4	65.5	16	14.91
5500 XD	225/70R 19.5F	19,500 lbs.	7,275 lbs.	8.3	6.6	12.3	11.5	28.3	26.4	65.5	16	14.91

Figure 32

Note: Dimensions in inches

Rear Axle Chart

Definitions	
A	Centerline of axle to bottom of axle bowl.
B	Centerline of axle to top of frame rail at metal---to---metal position.
C	Centerline of axle to top of frame rail at curb position.
D	Centerline of axle to top of frame rail at design load.
E	Rear Tire Clearance: Maximum clearance required for tires and chain measured from top of the frame at the vehicle centerline of the rear axle, when rear wheels on one side ride over a high spot.
CH	Rear Frame Height (Curb Load): Vertical distance between the normal top of frame rail and the ground---line through the centerline of the rear axle at curb position.
DH	Rear Frame Height (Design Load): Vertical distance between the normal top of frame rail and the ground---line through the centerline of the rear axle at design position.
DW	Minimum distance between the inner surfaces of the rear tires.
EW	Minimum Rear Width: Overall width of the vehicle measured at the outermost surfaces of the rear tires.
HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground---line.
HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.
KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.
CW	Track Dual Rear Wheel Vehicle: Distance between the centerlines of the dual wheels measured at the ground---line.
KW	Clearance between body and tires.
Equations	
CH	= Tire loaded radius + C
DH	= Tire loaded radius + D
DW	= CW + 2 tire sections --- tire clearance
EW	= CW + 2 tire sections + tire clearance
HH	= Tire loaded radius --- A
JH	= KH --- B
KH	= Tire radius + 3.0 inches
KW	= DW --- 5.0 inches
LW	= 1.0 inch minimum clearance between tires and springs

Values

Model	Tire	GAWR	CW	A	B	C	D	E
4500 HD	215/85R 16-E	9,880 lbs.	65.0	6.5	9.3	15.4	13.0	7.8
4500 XD	225/70R 19.5F	11,020 lbs.	65.7	7.7	9.3	15.3	13.4	8.4
5500 XD DERATE	225/70R 19.5F	12,980 lbs.	65.7	7.7	9.3	15.6	13.4	8.4
5500 XD	225/70R 19.5F	13,660 lbs.	65.7	7.7	9.3	15.6	13.4	8.4

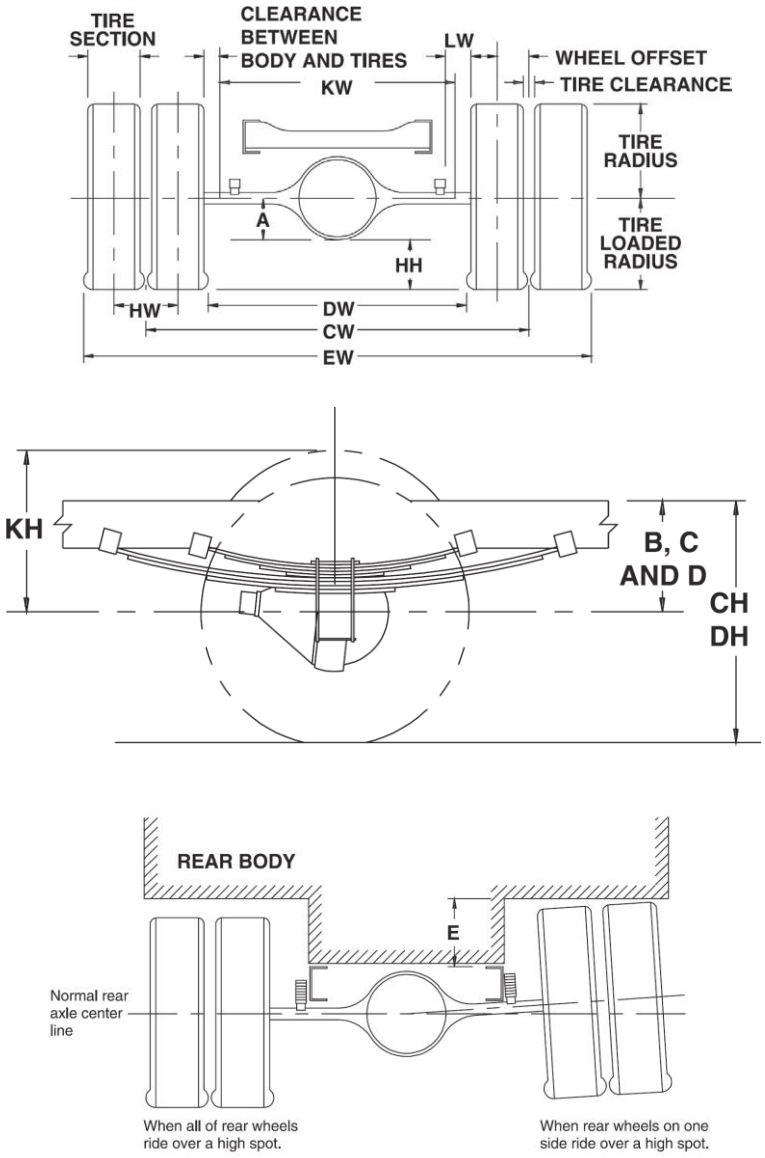


Figure 33

Note: Dimensions in inches

Suspension Deflection Charts

4500 HD

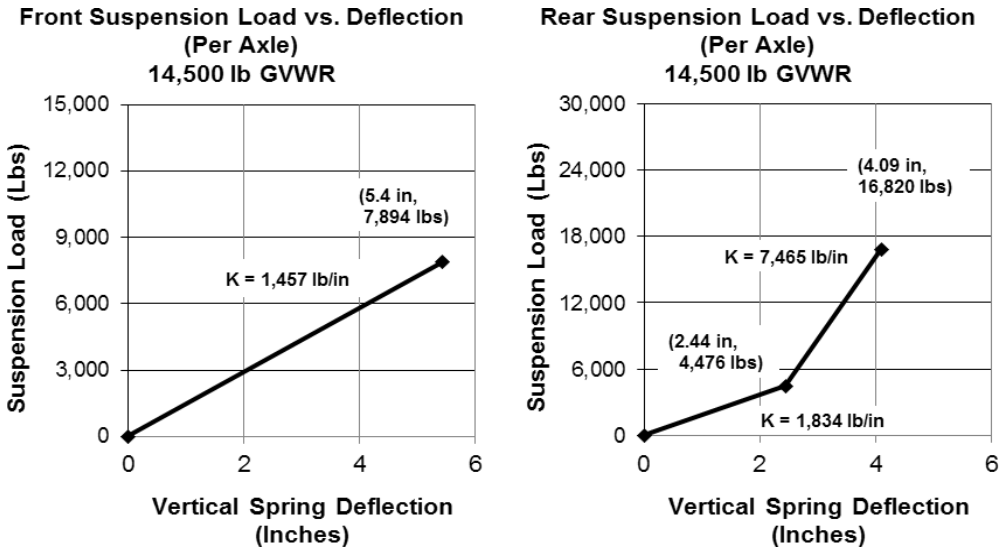


Figure 34

4500 XD

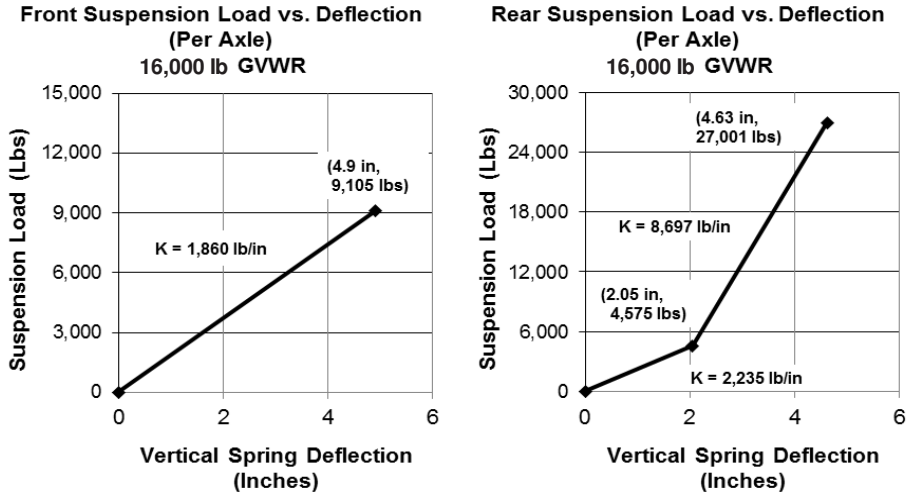


Figure 35

Suspension Deflection Charts

5500 XD DERATE

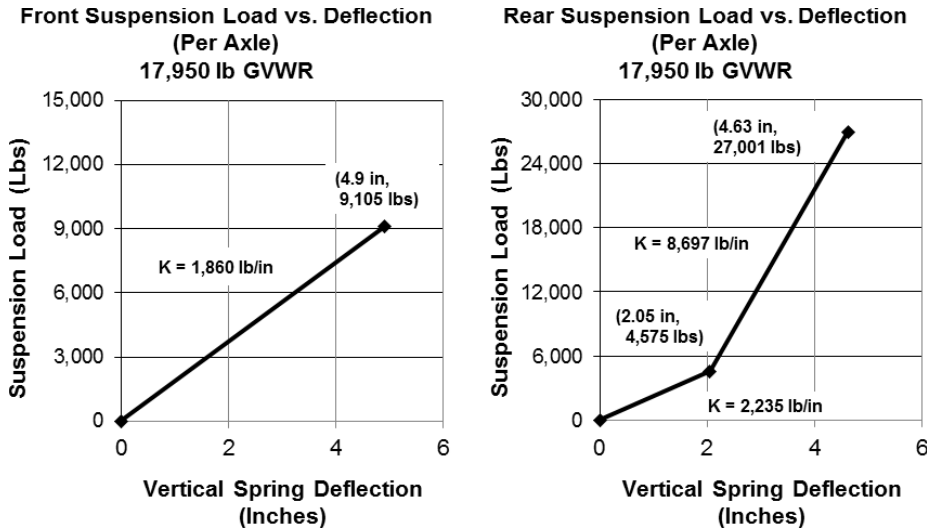


Figure 36

5500 XD

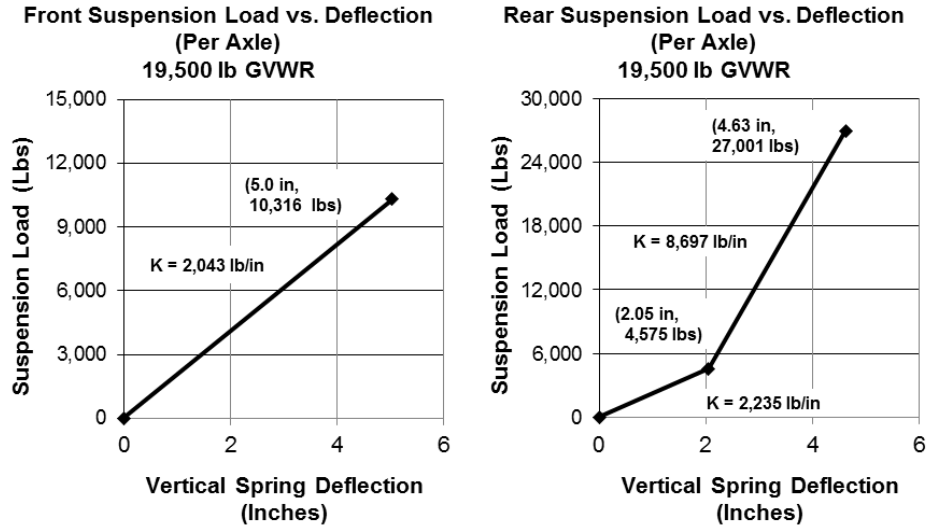


Figure 37

Tire and Disc Wheel Chart

Tire

Model	Tire Size	GVWR (lbs.)	Tire Load Limit and Cold Inflation Pressures				Maximum Tire Load Limits (lbs.)	
			Single		Dual		Front	Rear
			LBS.	PSI	LBS.	PSI	2 Single	4 Dual
4500 HD	215/85R-16E	14,500	2,680	80	2,470	80	5,360	9,880
4500 XD	225/70R-19.5F	16,000	3,315	85	3,115	85	6,630	12,460
5500 XD DERATE	225/70R-19.5F	17,950	3,640	95	3,415	95	7,280	13,660
5500 XD	225/70R-19.5F	19,500	3,640	95	3,415	95	7,280	13,660

Figure 38

Model	Tire Size	GVWR (lbs.)	Tire Radius				Tire Section Width	Tire Clearance	Design Rim Width
			Loaded		Unloaded				
			Front	Rear	Front	Rear			
4500 HD	215/85R-16E	14,500	14.1	14.1	14.6	14.6	8.2	1.8	6.0
4500 XD	225/70R-19.5F	16,000	14.93	14.98	16	16	8.7	1.3	6.0
5500 XD DERATE	225/70R-19.5F	17,950	14.91	14.96	16	16	8.7	1.3	6.0
5500 XD	225/70R-19.5F	19,500	14.91	14.96	16	16	8.7	1.3	6.0

Figure 39

Disc Wheel

Wheel Size	Bolt Holes	Bolt Circle Dia.	Ft./Rr. Nut Size*	Rear Stud Size*	Nut/Stud Torque Specs.	Inner Circle	Outside Offset	Disc Thickness	Rim Type	Material Mfg.
16 x 6 K	6 JIS	8.75	1.6142 (41 mm) BUD HEX	0.8268 (21 mm) SQUARE	325 ft-lb. (440 N•M)	6.46	5.0	0.37	5° DC	Steel TOPY
19.5 x 6.00 K	6 JIS	8.75	1.6142 (41 mm) BUD HEX	0.8268 (21 mm) SQUARE	325 ft-lb. (440 N•M)	6.46	5.0	0.35	15° DC	Steel TOPY

*O.D. Wrench Sizes

Figure 40

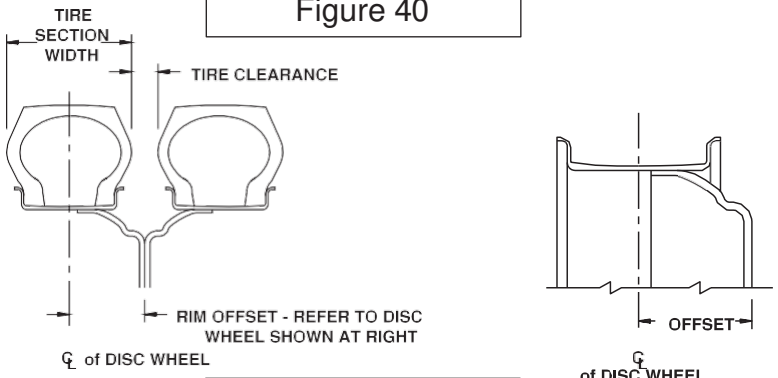
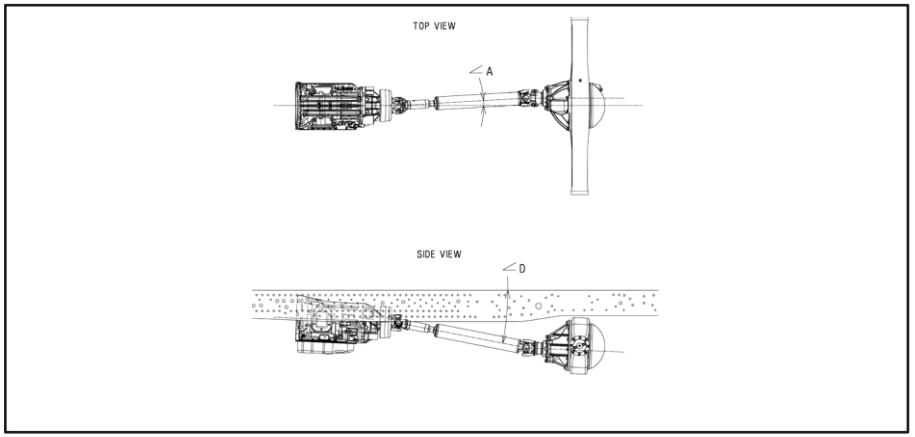
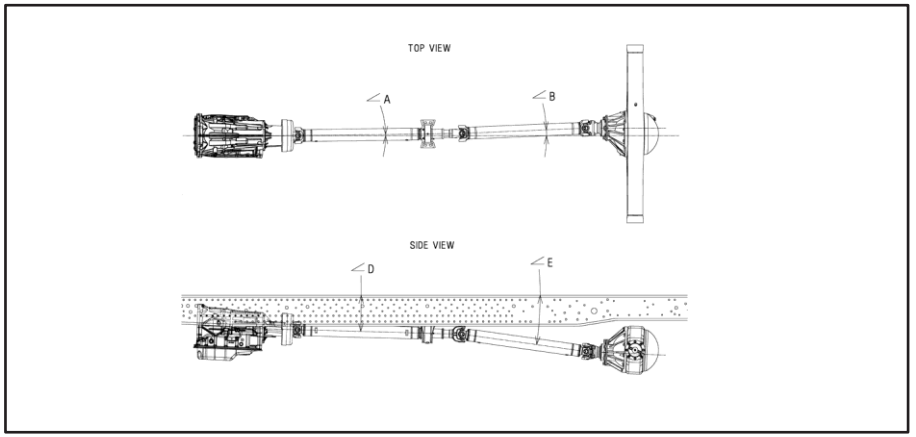


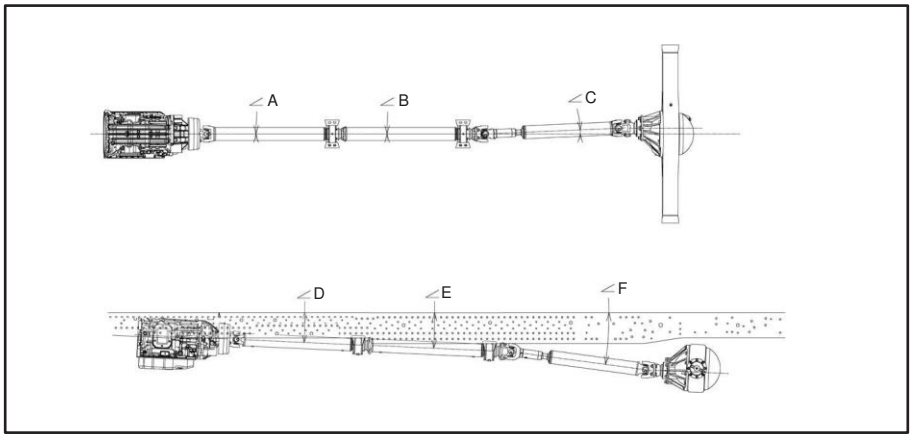
Figure 41

Note: Dimensions in inches

Propeller Shaft







Wheelbase (in.)	Top View			Side View				
	∠A	∠B	∠C	∠D	∠E	∠F	Trans.	Rear Axle
109	2.4º	-	-	10.6º	-	-	2.5º	2.5º
132.5	0º	3.2º	-	5.4º	7.7º	-	2.5º	2.5º
150	0º	2.7	-	2.6º	8.2º	-	2.5º	2.5º
176	0.3º	2.0º	-	1.9º	5.8º	-	2.5º	2.5º
200[1]	0º	0.2º	2.1º	2.3º	3.3º	3.5º	2.5º	2.5º
212[2]	0º	0.1º	2.1º	2.3º	1.6º	4.0º	2.5º	2.5º

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD

Figure 42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

Propeller Shaft Continued

Wheelbase	109	132.5	150	176	200[1]	212[2]
No. of Shafts	1	2	2	2	3	3
Shaft #1 O.D.	3.54	3.54	3.54	3.54	3.54	3.54
Thickness	0.091	0.126	0.091	0.126	0.126	0.126
Length	37.42	22.64	44.26	49.69	49.69	49.69
Type	A	B	B	B	B	B
Shaft #2 O.D.	N/A	3.54	3.54	3.54	3.54	3.54
Thickness	N/A	0.126	0.091	0.126	0.126	0.126
Length	N/A	36.53	34.17	52.93	23.93	35.68
Type	N/A	C	C	C	B	B
Shaft #3 O.D.	N/A	N/A	N/A	N/A	3.54	3.54
Thickness	N/A	N/A	N/A	N/A	0.126	0.126
Length	N/A	N/A	N/A	N/A	52.93	53.01
Type	N/A	N/A	N/A	N/A	C	C

Figure 43

[1] - Only available on 5500 XD DERATE & 5500 XD
[2] - Only available on the 5500 XD

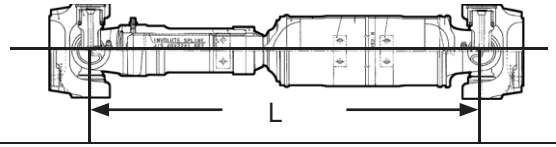
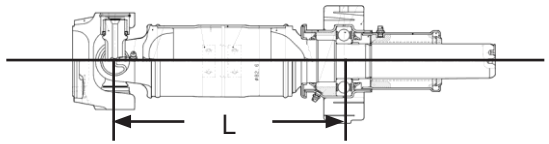
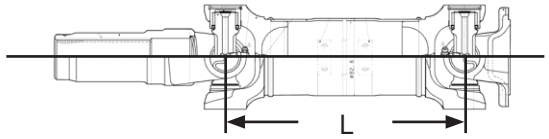
Type	Description	Illustration
Type **A**	1st shaft in 1-piece driveline	
Type **B**	1st shaft in 2-piece driveline	
Type **C**	2nd shaft in 2-piece driveline	

Figure 44

Note: Dimensions in inches

Brake System Diagram - 14,500 & 16,000 GVW

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.

Previous Model Year Shown. Update Coming Soon

Legend

(1) Electronic Hydraulic Control Unit (EHCU)
(2) Rear Brake
(3) Vacuum Pump
(4) Check Valve
(5) Exhaust Brake Valve
(6) Magnetic Valve
(7) Exhaust Brake
(8) Check Valve (One-way Valve)
(9) Vacuum Tank
(10) Vacuum Sensor
(11) Vacuum Booster (Servo Unit)
(12) Master Cylinder
(13) Brake Fluid Reservoir
(14) Front Brake

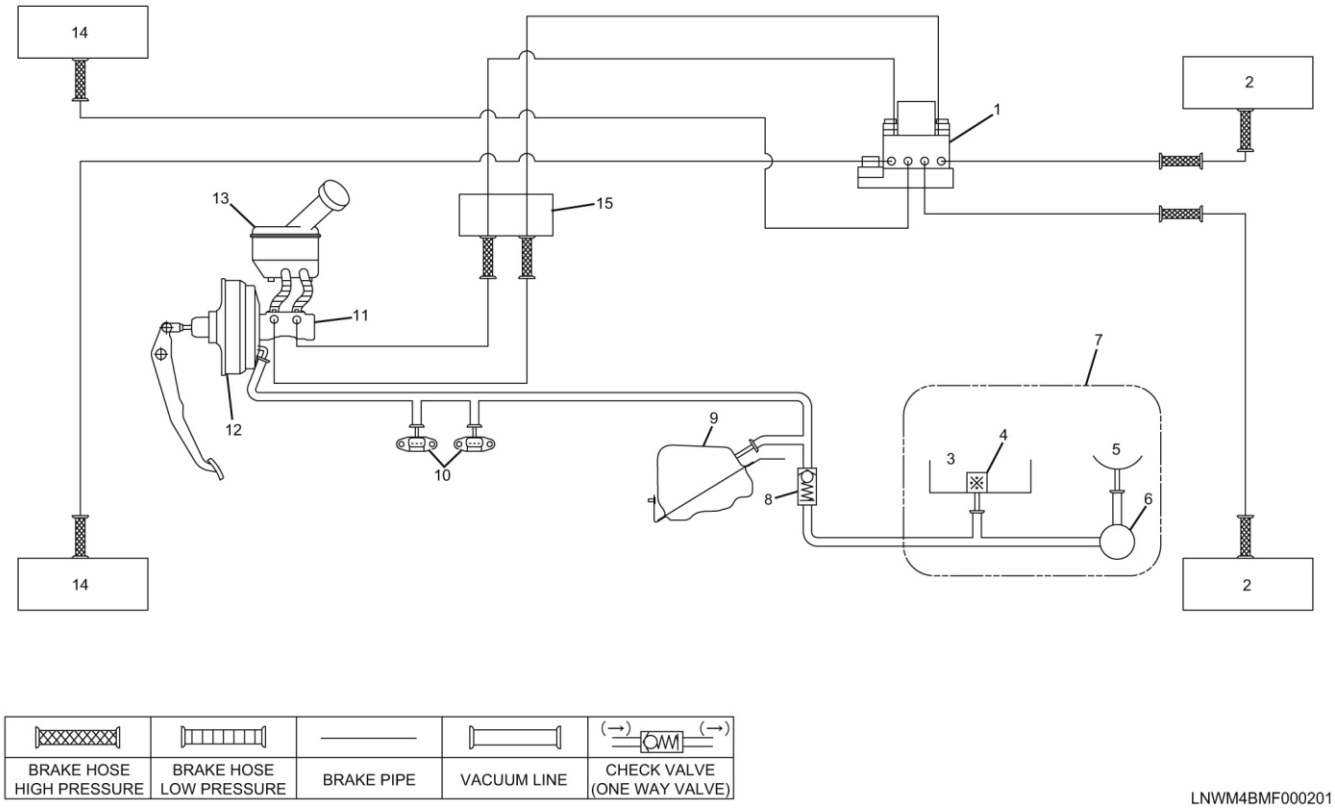


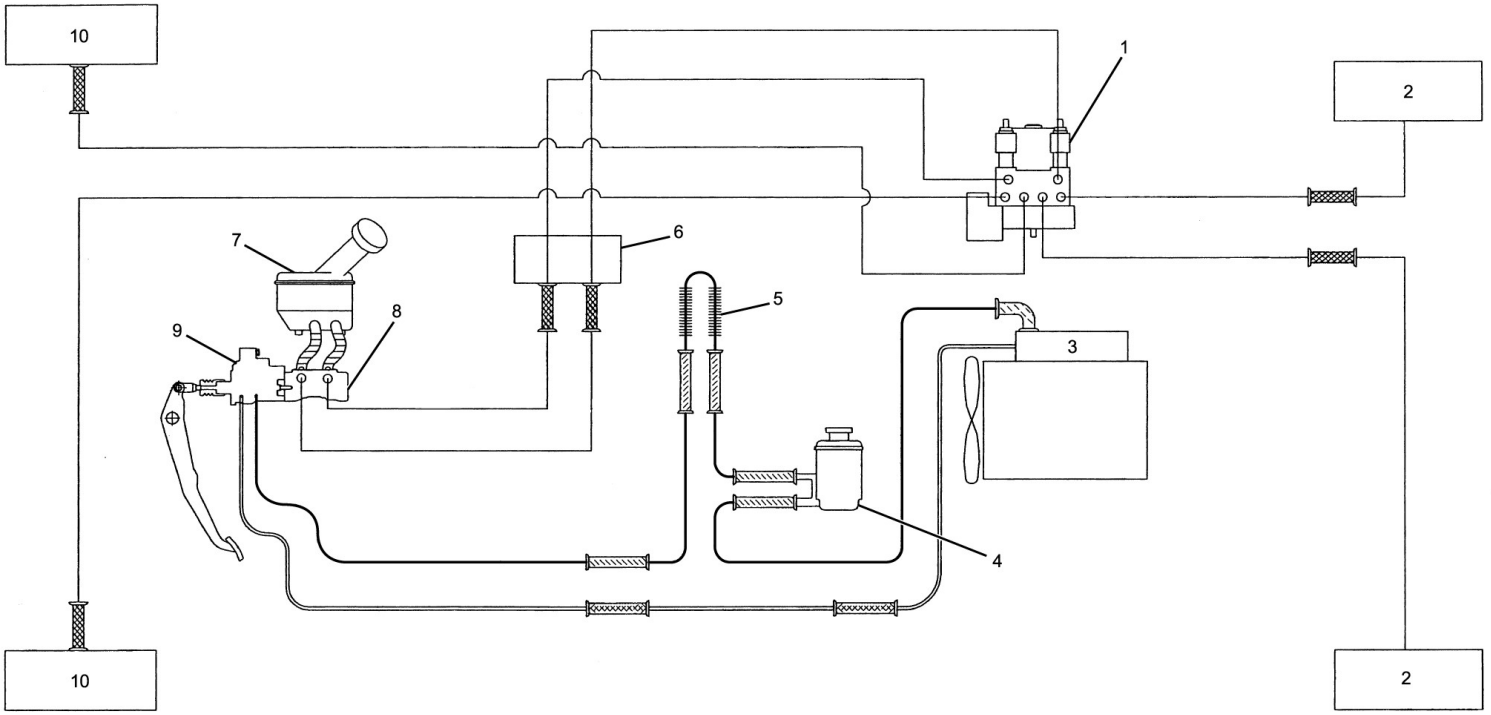
Figure 45

Brake System Diagram - 17,950 & 19,500 GVW

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.

Previous Model Year Shown. Update Coming Soon



Legend

(1) Electronic Hydraulic Control Unit (EHCU)
(2) Rear Brake
(3) Hydraulic Booster Oil Pump
(4) Hydraulic Booster Reservoir
(5) Cooler Pipe
(6) Pipe Connector
(7) Brake Fluid Reservoir
(8) Master Cylinder
(9) Hydraulic Booster Unit
(10) Front Brake

LNWC5AMF000301

Figure 46

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	6500 XD
GVWR/GCWR	25,950 lbs. / 30,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in^2 radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2550 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.; 255/70R22.5H tires - 11,000 lbs.
Front Axle	Dana E-1254W reverse Elliot “I”-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	19,000 lbs.
Rear Axle	Dana S19-140 single-speed, 19,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs.
	Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
	255/70R22.5H LRR (Low Rolling Resistance) Low Profile, tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45-degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver’s seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	7500 XD
GVWR/GCWR	33,000 lbs. / 33,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in^2 radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2500 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.
Front Axle	Dana E-1254W reverse Elliot “I”-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	21,000 lbs.
Rear Axle	Dana S21-140 single-speed, 21,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs.
	Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45-degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver’s seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Chassis Specifications

Model	7500 XD DERATE
GVWR/GCWR	25,950 lbs. / 33,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in^2 radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2500 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.
Front Axle	Dana E-1254W reverse Elliot “I”-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	21,000 lbs.
Rear Axle	Dana S21-140 single-speed, 21,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs.
	Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45-degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver’s seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
6500 XD Multi-leaf Suspension

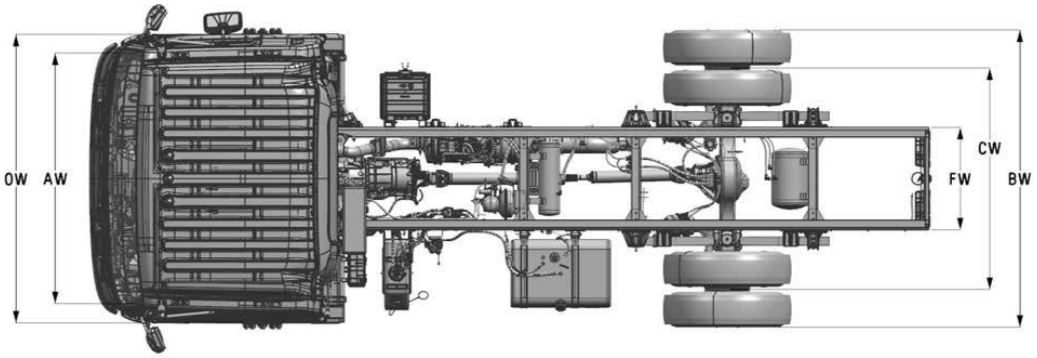


Figure 1

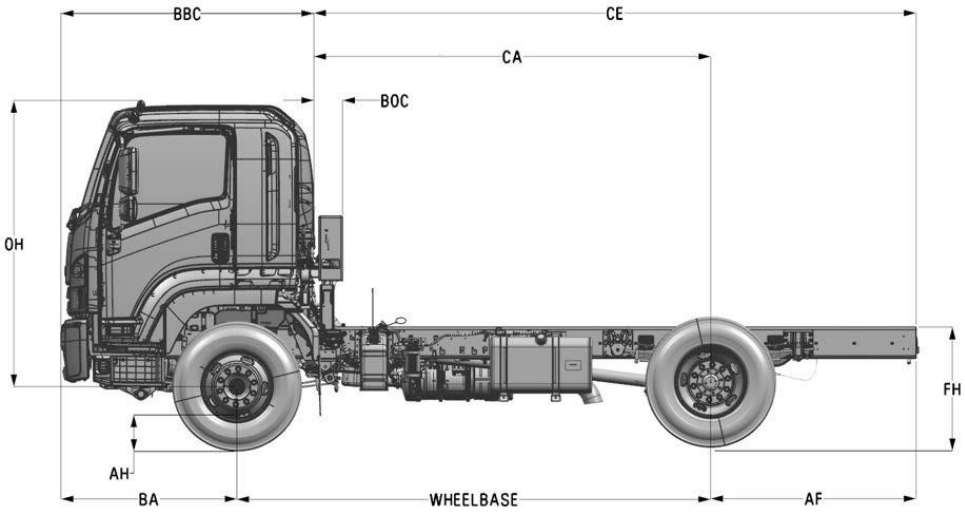


Figure 2

CHASSIS DIMENSIONS (in)						
MODEL	WB	CA[1]	CE[2]	AF	FL	OAL
MT1	152	127	192.9	65.9	270.5	274.4
MT2	170	145	220	75	297.6	301.5
MT3	188	163	247	84.1	324.6	328.5
MT4	200	175	264.9	90	342.5	346.4
MT5	212	187	283.1	96.1	360.6	364.6
MT6	224	199	301	102	378.5	382.5
MT7	236	211	319.1	108.1	396.7	400.6
MT8	248	223	337	114	414.6	418.5

DIMENSION CONSTANTS (in)	
AW = Front axle track	81.1
BA = Front bumper to centerline of axle	56.5
BBC = Bumper to back of cab	81.5
BOC = Back of cab clearance	10.4
BW = Overall width across rear axle	96
CW = Rear axle track	72.2
FW = Frame width	33.5
OW = Overall width across cab (without mirrors)	93.5

DIMENSIONS BY TIRE SIZE (in.)	11R22.5G	255/70R22.5H
AH = Ground to bottom of axle	10	7.7
FH = Frame height (unladen) at E.O.F.[3]	42.5	39.9
FH = Frame height (unladen) at R/A[4]	41	39.2
FH = Frame height (laden) at R/A[5]	37.5	36.4
OH = Overall height (without clearance lights)	112	110.2

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

[4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb.

[5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
6500 XD Air-spring Suspension

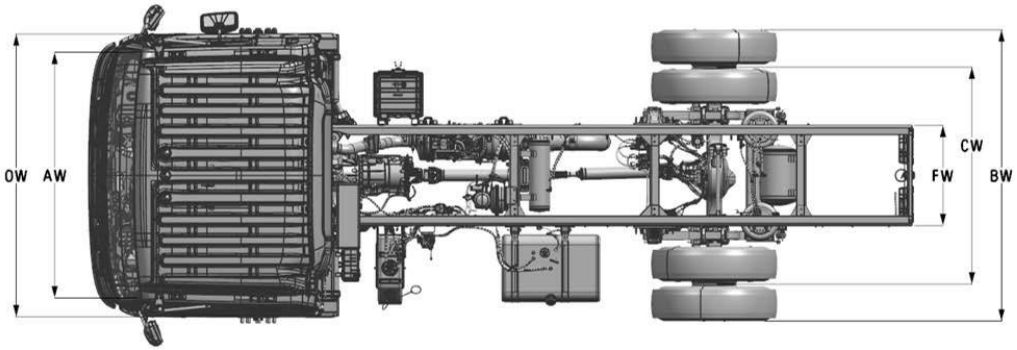


Figure 3

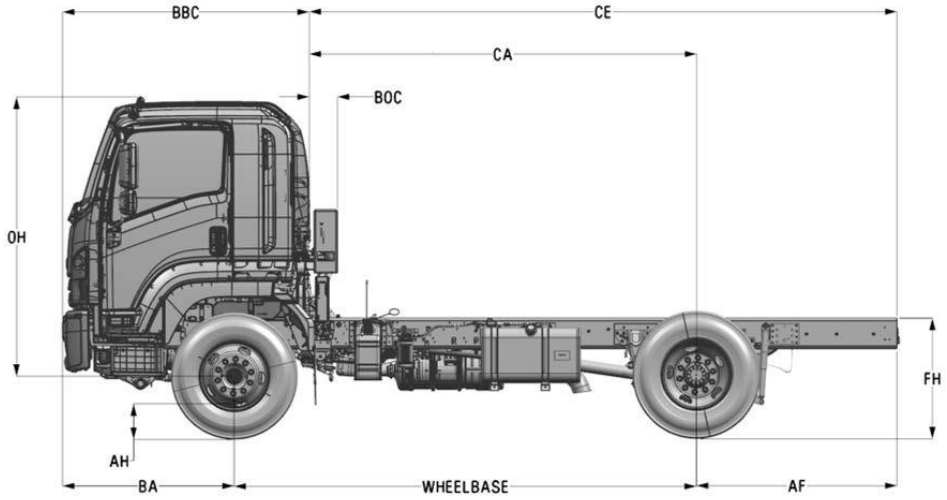


Figure 4

CHASSIS DIMENSIONS (in)						
MODEL	WB	CA[1]	CE[2]	AF	FL	OAL
MT1	152	127	192.9	65.9	270.5	274.4
MT2	170	145	220	75	297.6	301.5
MT3	188	163	247	84.1	324.6	328.5
MT4	200	175	264.9	90	342.5	346.4
MT5	212	187	283.1	96.1	360.6	364.6
MT6	224	199	301	102	378.5	382.5
MT7	236	211	319.1	108.1	396.7	400.6
MT8	248	223	337	114	414.6	418.5

DIMENSION CONSTANTS (in)		
AW = Front axle track		81.1
BA = Front bumper to centerline of axle		56.5
BBC = Bumper to back of cab		81.5
BOC = Back of cab clearance		10.4
BW = Overall width across rear axle		96
CW = Rear axle track		72.2
FW = Frame width		33.5
OW = Overall width across cab (without mirrors)		93.5
DIMENSIONS BY TIRE SIZE (in.)	11R22.5G	255/70R22.5H
AH = Ground to bottom of axle	10	7.7
FH = Frame height (unladen) at E.O.F.[3]	38.2	35.9
FH = Frame height (unladen) at R/A[4]	38.2	35.9
FH = Frame height (laden) at R/A[5]	38.2	35.9
FH = Frame height (dump position) at R/A	35.3	33
OH = Overall height (without clearance lights)	108.6	107

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

[4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb.

[5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
7500 XD / 7500 XD Derate Multi-leaf Suspension

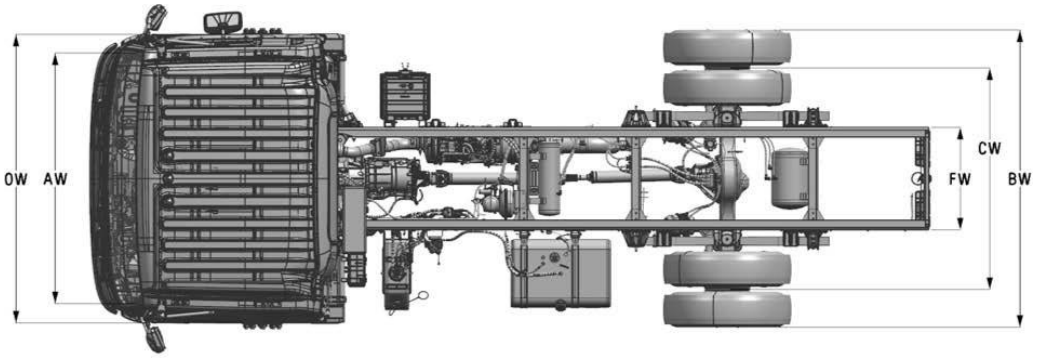


Figure 5

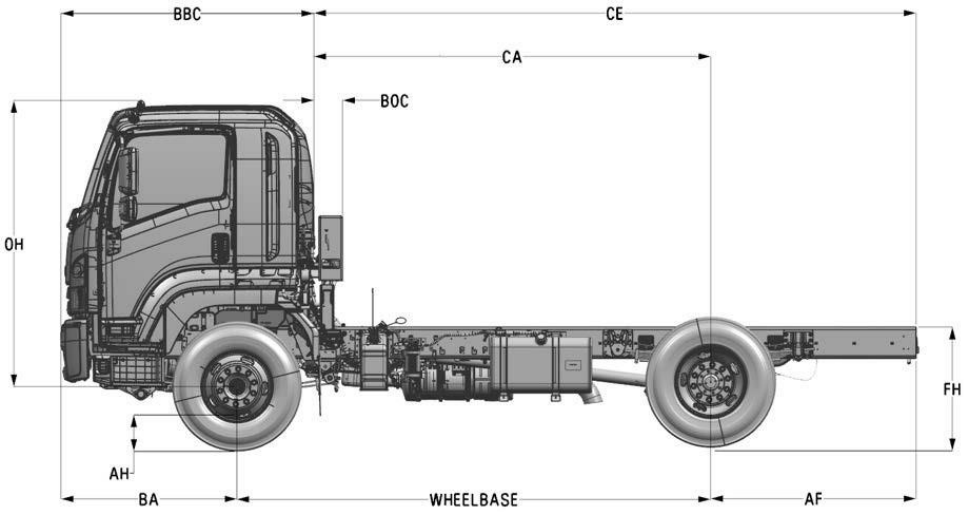


Figure 6

CHASSIS DIMENSIONS (in)						
MODEL	WB	CA[1]	CE[2]	AF	FL	OAL
MV1 / MW1	152	127	192.9	65.9	270.5	274.4
MV2 / MW2	170	145	220	75	297.6	301.5
MV3 / MW3	188	163	247	84.1	324.6	328.5
MV4 / MW4	200	175	264.9	90	342.5	346.4
MV5 / MW5	212	187	283.1	96.1	360.6	364.6
MV6 / MW6	224	199	301	102	378.5	382.5
MV7 / MW7	236	211	319.1	108.1	396.7	400.6
MV8 / MW8	248	223	337	114	414.6	418.5

DIMENSION CONSTANTS (in)	
AW = Front axle track	81.1
BA = Front bumper to centerline of axle	56.5
BBC = Bumper to back of cab	81.5
BOC = Back of cab clearance	10.4
BW = Overall width across rear axle	96
CW = Rear axle track	72.2
FW = Frame width	33.5
OW = Overall width across cab (without mirrors)	93.5
DIMENSIONS BY TIRE SIZE (in.)	11R22.5G
AH = Ground to bottom of axle	10
FH = Frame height (unladen) at E.O.F.[3]	42.5
FH = Frame height (unladen) at R/A[4]	41
FH = Frame height (laden) at R/A[5]	37.5
OH = Overall height (without clearance lights)	112

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

[4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb.

[5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
7500 XD / 7500 XD Derate Air-spring Suspension

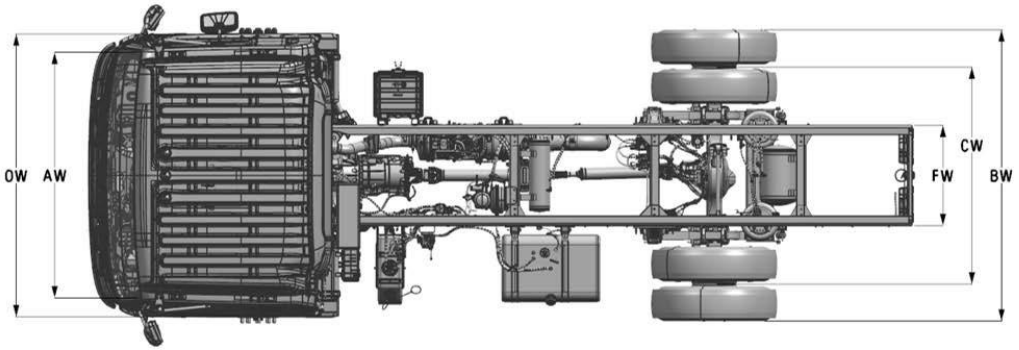


Figure 7

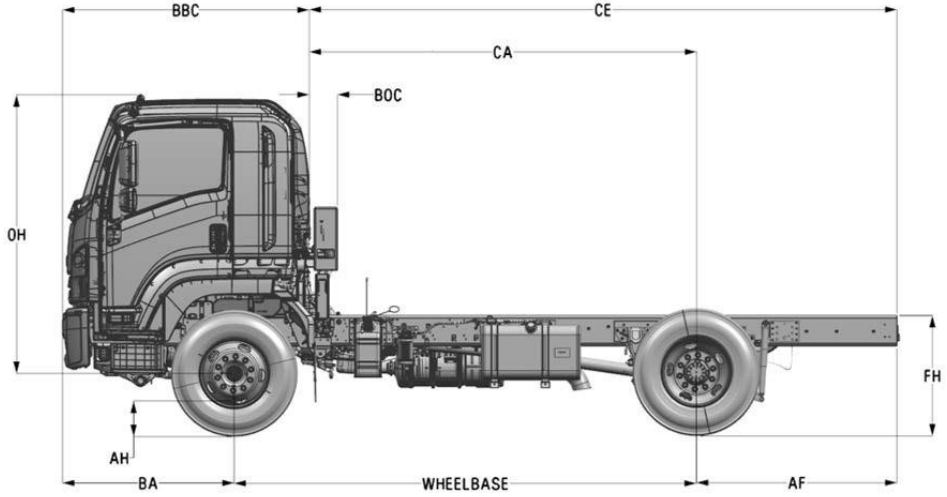


Figure 8

CHASSIS DIMENSIONS (in)						
MODEL	WB	CA[1]	CE[2]	AF	FL	OAL
MV1 / MW1	152	127	192.9	65.9	270.5	274.4
MV2 / MW2	170	145	220	75	297.6	301.5
MV3 / MW3	188	163	247	84.1	324.6	328.5
MV4 / MW4	200	175	264.9	90	342.5	346.4
MV5 / MW5	212	187	283.1	96.1	360.6	364.6
MV6 / MW6	224	199	301	102	378.5	382.5
MV7 / MW7	236	211	319.1	108.1	396.7	400.6
MV8 / MW8	248	223	337	114	414.6	418.5

DIMENSION CONSTANTS (in)	
AW = Front axle track	81.1
BA = Front bumper to centerline of axle	56.5
BBC = Bumper to back of cab	81.5
BOC = Back of cab clearance	10.4
BW = Overall width across rear axle	96
CW = Rear axle track	72.2
FW = Frame width	33.5
OW = Overall width across cab (without mirrors)	93.5
DIMENSIONS BY TIRE SIZE (in.)	11R22.5G
AH = Ground to bottom of axle	10
FH = Frame height (unladen) at E.O.F.[3]	38.2
FH = Frame height (unladen) at R/A[4]	38.2
FH = Frame height (laden) at R/A[5]	38.2
FH = Frame height (dump position) at R/A	35.3
OH = Overall height (without clearance lights)	108.6

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

[4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb.

[5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Multi-leaf Suspension – 6500 XD

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR LEAF SUSPENSION - STANDARD TIRES									
MT1	G1	152	50	11R22.5	5.57	6575	3668	10243	15707
MT2	G1	170	50	11R22.5	5.57	6650	3671	10321	15629
MT3	G1	188	50	11R22.5	5.57	6724	3780	10504	15446
MT3	G2	188	100	11R22.5	5.57	6773	3852	10625	15325
MT4	G1	200	50	11R22.5	5.57	6823	3925	10748	15202
MT4	G2	200	100	11R22.5	5.57	6872	3997	10869	15081
MT5	G1	212	50	11R22.5	5.57	6850	3986	10836	15114
MT5	G2	212	100	11R22.5	5.57	6912	4046	10958	14992
MT6	G1	224	50	11R22.5	5.57	6973	4108	11081	14869
MT6	G2	224	100	11R22.5	5.57	7031	4170	11201	14749
MT7	G2	236	100	11R22.5	5.57	7093	4231	11324	14626
MT8	G2	248	100	11R22.5	5.57	7153	4292	11445	14505
FTR LEAF SUSPENSION - LOW PROFILE TIRES									
MT1	G5	152	50	255/70R22.5	4.88	6503	3515	10018	15932
MT2	G5	170	50	255/70R22.5	4.88	6578	3518	10096	15854
MT3	G5	188	50	255/70R22.5	4.88	6652	3627	10279	15671
MT3	G6	188	100	255/70R22.5	4.88	6701	3699	10400	15550
MT4	G5	200	50	255/70R22.5	4.88	6751	3772	10523	15427
MT4	G6	200	100	255/70R22.5	4.88	6800	3844	10644	15306
MT5	G5	212	50	255/70R22.5	4.88	6778	3833	10611	15339
MT5	G6	212	100	255/70R22.5	4.88	6840	3893	10733	15217
MT6	G5	224	50	255/70R22.5	4.88	6901	3955	10856	15094
MT6	G6	224	100	255/70R22.5	4.88	6959	4017	10976	14974
MT7	G6	236	100	255/70R22.5	4.88	7021	4078	11099	14851
MT8	G6	248	100	255/70R22.5	4.88	7081	4139	11220	14730

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
[2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Multi-leaf Suspension – 6500 XD

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR LEAF SUSPENSION - STANDARD TIRES - ALUMINUM WHEELS									
MT1	A1	152	50	11R22.5	5.57	6519	3556	10075	15875
MT2	A1	170	50	11R22.5	5.57	6594	3559	10153	15797
MT3	A1	188	50	11R22.5	5.57	6668	3668	10336	15614
MT3	A2	188	100	11R22.5	5.57	6717	3740	10457	15493
MT4	A1	200	50	11R22.5	5.57	6767	3813	10580	15370
MT4	A2	200	100	11R22.5	5.57	6816	3885	10701	15249
MT5	A1	212	50	11R22.5	5.57	6794	3874	10668	15282
MT5	A2	212	100	11R22.5	5.57	6856	3934	10790	15160
MT6	A1	224	50	11R22.5	5.57	6917	3996	10913	15037
MT6	A2	224	100	11R22.5	5.57	6975	4058	11033	14917
MT7	A2	236	100	11R22.5	5.57	7037	4119	11156	14794
MT8	A2	248	100	11R22.5	5.57	7097	4180	11277	14673
FTR LEAF SUSPENSION - LOW PROFILE TIRES - ALUMINUM WHEELS									
MT1	A5	152	50	255/70R22.5	4.88	6447	3403	9850	16100
MT2	A5	170	50	255/70R22.5	4.88	6522	3406	9928	16022
MT3	A5	188	50	255/70R22.5	4.88	6596	3515	10111	15839
MT3	A6	188	100	255/70R22.5	4.88	6645	3587	10232	15718
MT4	A5	200	50	255/70R22.5	4.88	6695	3660	10355	15595
MT4	A6	200	100	255/70R22.5	4.88	6744	3732	10476	15474
MT5	A5	212	50	255/70R22.5	4.88	6722	3721	10443	15507
MT5	A6	212	100	255/70R22.5	4.88	6784	3781	10565	15385
MT6	A5	224	50	255/70R22.5	4.88	6845	3843	10688	15262
MT6	A6	224	100	255/70R22.5	4.88	6903	3905	10808	15142
MT7	A6	236	100	255/70R22.5	4.88	6965	3966	10931	15019
MT8	A6	248	100	255/70R22.5	4.88	7025	4027	11052	14898

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
[2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Air-spring Suspension – 6500 XD

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR AIR SUSPENSION- STANDARD TIRES									
MT1	G3	152	50	11R22.5	5.57	6575	3504	10079	15871
MT2	G3	170	50	11R22.5	5.57	6650	3507	10157	15793
MT3	G3	188	50	11R22.5	5.57	6724	3616	10340	15610
MT3	G4	188	100	11R22.5	5.57	6773	3688	10461	15489
MT4	G3	200	50	11R22.5	5.57	6823	3761	10584	15366
MT4	G4	200	100	11R22.5	5.57	6872	3833	10705	15245
MT5	G3	212	50	11R22.5	5.57	6850	3822	10672	15278
MT5	G4	212	100	11R22.5	5.57	6912	3882	10794	15156
MT6	G3	224	50	11R22.5	5.57	6973	3944	10917	15033
MT6	G4	224	100	11R22.5	5.57	7031	4006	11037	14913
MT7	G4	236	100	11R22.5	5.57	7093	4067	11160	14790
MT8	G4	248	100	11R22.5	5.57	7153	4128	11281	14669
FTR AIR SUSPENSION - LOW PROFILE TIRES									
MT1	G7	152	50	255/70R22.5	4.88	6503	3351	9854	16096
MT2	G7	170	50	255/70R22.5	4.88	6578	3354	9932	16018
MT3	G7	188	50	255/70R22.5	4.88	6652	3463	10115	15835
MT3	G8	188	100	255/70R22.5	4.88	6701	3535	10236	15714
MT4	G7	200	50	255/70R22.5	4.88	6751	3608	10359	15591
MT4	G8	200	100	255/70R22.5	4.88	6800	3680	10480	15470
MT5	G7	212	50	255/70R22.5	4.88	6778	3669	10447	15503
MT5	G8	212	100	255/70R22.5	4.88	6840	3729	10569	15381
MT6	G7	224	50	255/70R22.5	4.88	6901	3791	10692	15258
MT6	G8	224	100	255/70R22.5	4.88	6959	3853	10812	15138
MT7	G8	236	100	255/70R22.5	4.88	7021	3914	10935	15015
MT8	G8	248	100	255/70R22.5	4.88	7081	3975	11056	14894

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
[2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Air-spring Suspension – 6500 XD

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
6500 XD AIR SUSPENSION- STANDARD TIRES - ALUMINUM WHEELS									
MT1	A3	152	50	11R22.5	5.57	6519	3392	9911	16039
MT2	A3	170	50	11R22.5	5.57	6594	3395	9989	15961
MT3	A3	188	50	11R22.5	5.57	6668	3504	10172	15778
MT3	A4	188	100	11R22.5	5.57	6717	3576	10293	15657
MT4	A3	200	50	11R22.5	5.57	6767	3649	10416	15534
MT4	A4	200	100	11R22.5	5.57	6816	3721	10537	15413
MT5	A3	212	50	11R22.5	5.57	6794	3710	10504	15446
MT5	A4	212	100	11R22.5	5.57	6856	3770	10626	15324
MT6	A3	224	50	11R22.5	5.57	6917	3832	10749	15201
MT6	A4	224	100	11R22.5	5.57	6975	3894	10869	15081
MT7	A4	236	100	11R22.5	5.57	7037	3955	10992	14958
MT8	A4	248	100	11R22.5	5.57	7097	4016	11113	14837
6500 XD AIR SUSPENSION - LOW PROFILE TIRES - ALUMINUM WHEELS									
MT1	A7	152	50	255/70R22.5	4.88	6447	3239	9686	16264
MT2	A7	170	50	255/70R22.5	4.88	6522	3242	9764	16186
MT3	A7	188	50	255/70R22.5	4.88	6596	3351	9947	16003
MT3	A8	188	100	255/70R22.5	4.88	6645	3423	10068	15882
MT4	A7	200	50	255/70R22.5	4.88	6695	3496	10191	15759
MT4	A8	200	100	255/70R22.5	4.88	6744	3568	10312	15638
MT5	A7	212	50	255/70R22.5	4.88	6722	3557	10279	15671
MT5	A8	212	100	255/70R22.5	4.88	6784	3617	10401	15549
MT6	A7	224	50	255/70R22.5	4.88	6845	3679	10524	15426
MT6	A8	224	100	255/70R22.5	4.88	6903	3741	10644	15306
MT7	A8	236	100	255/70R22.5	4.88	6965	3802	10767	15183
MT8	A8	248	100	255/70R22.5	4.88	7025	3863	10888	15062

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
[2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Multi-leaf Suspension – 7500 XD

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		33,000
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
7500 XD Standard Tires - Leaf Suspension									
MV1	G1	152	50	11R22.5	5.57	6575	3768	10343	22657
MV2	G1	170	50			6650	3771	10421	22579
MV3	G2	188	100			6850	4086	10936	22064
MV4	G2	200	100			6912	4146	11058	21942
MV5	G2	212	100			6973	4208	11181	21819
MV6	G2	224	100			7031	4270	11301	21699
MV7	G2	236	100			7093	4331	11424	21576
MV8	G2	248	100			7153	4392	11545	21455
7500 XD Standard Tires - Leaf Suspension - Aluminum Wheels									
MV1	A1	152	50	11R22.5	5.57	6519	3656	10175	22825
MV2	A1	170	50			6594	3659	10253	22747
MV3	A2	188	100			6794	3974	10768	22232
MV4	A2	200	100			6856	4034	10890	22110
MV5	A2	212	100			6917	4096	11012	21988
MV6	A2	224	100			6975	4158	11133	21867
MV7	A2	236	100			7037	4219	11256	21744
MV8	A2	248	100			7097	4280	11377	21623

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Multi-leaf Suspension – 7500 XD DERATE

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		25,950
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
7500 XD DERATE Standard Tires - Leaf Suspension									
MW1	G1	152	50	11R22.5	5.57	6575	3768	10343	15607
MW2	G1	170	50			6650	3771	10421	15529
MW3	G2	188	100			6850	4086	10937	15014
MW4	G2	200	100			6912	4146	11058	14893
MW5	G2	212	100			6973	4208	11181	14770
MW6	G2	224	100			7031	4270	11302	14649
MW7	G2	236	100			7093	4331	11424	14527
MW8	G2	248	100			7153	4392	11545	14405
7500 XD DERATE Standard Tires - Leaf Suspension - Aluminum Wheels									
MW1	A1	152	50	11R22.5	5.57	6519	3656	10175	15775
MW2	A1	170	50			6594	3659	10253	15697
MW3	A2	188	100			6794	3974	10769	15182
MW4	A2	200	100			6856	4034	10890	15061
MW5	A2	212	100			6917	4096	11013	14938
MW6	A2	224	100			6975	4158	11134	14817
MW7	A2	236	100			7037	4219	11256	14695
MW8	A2	248	100			7097	4280	11377	14573

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Air-spring Suspension – 7500 XD

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		33,000
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
7500 XD Standard Tires - Air Suspension									
MV1	G3	152	50	11R22.5	5.57	6575	3604	10179	22821
MV2	G3	170	50			6650	3607	10257	22743
MV3	G4	188	100			6850	3922	10772	22228
MV4	G4	200	100			6912	3982	10894	22106
MV5	G4	212	100			6973	4044	11017	21983
MV6	G4	224	100			7031	4106	11137	21863
MV7	G4	236	100			7093	4167	11260	21740
MV8	G4	248	100			7153	4228	11381	21619
7500 XD Standard Tires - Air Suspension - Aluminum Wheels									
MV1	A3	152	50	11R22.5	5.57	6519	3492	10011	22989
MV2	A3	170	50			6594	3495	10089	22911
MV3	A4	188	100			6794	3810	10604	22396
MV4	A4	200	100			6856	3870	10726	22274
MV5	A4	212	100			6917	3932	10849	22151
MV6	A4	224	100			6975	3994	10969	22031
MV7	A4	236	100			7037	4055	11092	21908
MV8	A4	248	100			7097	4116	11213	21787

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2025 Chevrolet Low Cab Forward

Vehicle Weights, Dimensions and Ratings
Air-spring Suspension – 7500 XD DERATE

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		25,950
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
7500 XD DERATE Standard Tires - Air Suspension									
MW1	G3	152	50	11R22.5	5.57	6575	3604	10179	15771
MW2	G3	170	50			6650	3607	10257	15693
MW3	G4	188	100			6850	3922	10773	15178
MW4	G4	200	100			6912	3982	10894	15057
MW5	G4	212	100			6973	4044	11017	14934
MW6	G4	224	100			7031	4106	11138	14813
MW7	G4	236	100			7093	4167	11260	14691
MW8	G4	248	100			7153	4228	11381	14569
7500 XD DERATE Standard Tires - Air Suspension - Aluminum Wheels									
MW1	A3	152	50	11R22.5	5.57	6519	3492	10011	15939
MW2	A3	170	50			6594	3495	10089	15861
MW3	A4	188	100			6794	3810	10605	15346
MW4	A4	200	100			6856	3870	10726	15225
MW5	A4	212	100			6917	3932	10849	15102
MW6	A4	224	100			6975	3994	10970	14981
MW7	A4	236	100			7037	4055	11092	14859
MW8	A4	248	100			7097	4116	11213	14737

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

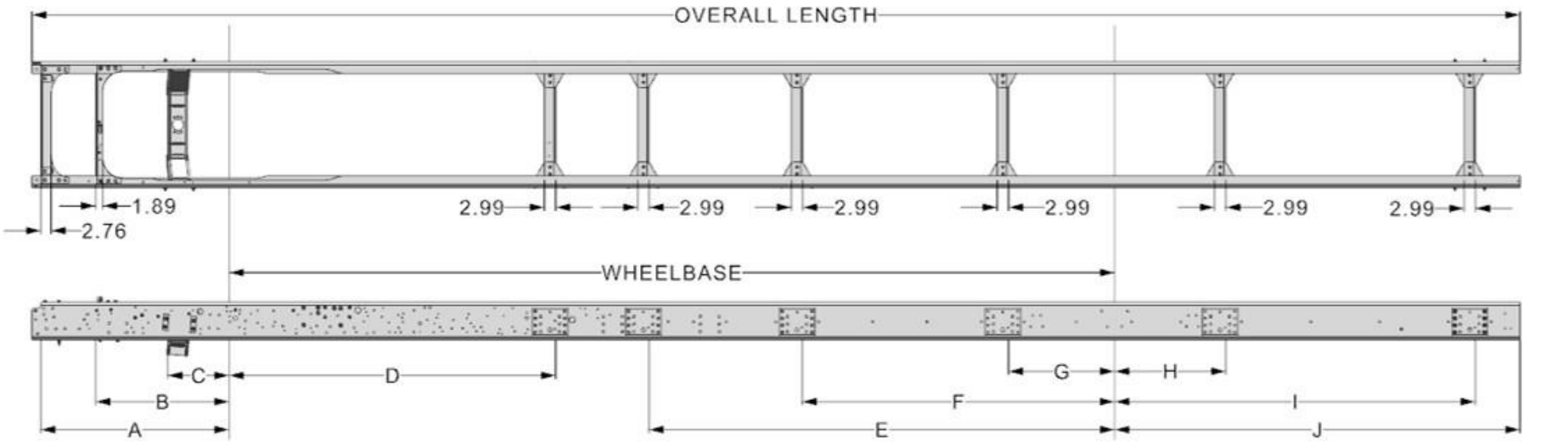
2025 Chevrolet Low Cab Forward

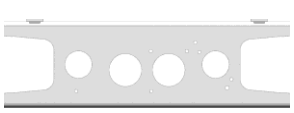
Optional Equipment Weights

OPTION WEIGHTS		
RPO Code	Description	Front / Rear (lbs)
I6B	AGM batteries (825 CCA x 2)	14 / 4
I7V	Aluminum wheels: 4 aluminum wheels + 2 steel rear inner wheels	-56 / -56
I8V	Aluminum wheels: 6 aluminum wheels	-56 / -112
I1V	Audio system with 7" diagonal color touch screen	2 / 0
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	2 / 2
UZF	Back up alarm	0 / 1
I79	Block heater and oil pan heater with receptacle	3 / 0
I72	Block heater with receptacle	2 / 0
V22	Chrome grille	1 / 0
I2M	Delete cruise control switch	-3 / 0
IY4	Delete radio	-3 / 0
IH2	Engine emergency shutdown system HWT, LWL, LOP	0 / 0
IY9	Engine idle shutdown (timer set at 3 minutes for engine shutdown)	0 / 0
I9A	Engine idle shutdown (timer set at 5 minutes for engine shutdown)	0 / 0
IF6	Fire extinguisher (2.5 lbs) and triangle kit	22 / 0
I8P	Fire extinguisher (5 lbs) and triangle kit	27 / 0
I4V	Forward collision and lane departure warning (Mobileye)	2 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger seat only)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only)	0 / 0
I4K	Keyless entry	1 / 0
I6L	LED lighting package	0 / 0
IL9	PTO enable switch and engine idle up switch recommended for PTO and idle applications only	0 / 0
IV8	Seat covers	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I0Z	Spartan Modification Center Ship Thru Code	0 / 0
I1L	Speed limited to 58 MPH	0 / 0
I2L	Speed limited to 65 MPH	0 / 0
I3L	Speed limited to 68 MPH	0 / 0
I4L	Speed limited to 70 MPH	0 / 0
I4Q	102'' wide standard mirror heads	2 / 0
I5Q	102" wide heated mirrors (flat & convex)	2 / 0
I6Q	102" wide heated remote mirrors (heated flat & convex, remote flat only)	3 / 0
I2Q	96" wide heated mirrors (flat & convex)	1 / 0
I3Q	96" wide heated remote mirrors (heated flat & convex, remote flat only)	2 / 0

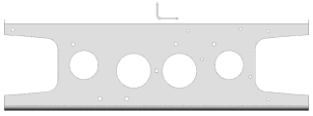
2025 Chevrolet Low Cab Forward

Frame and Crossmember Specifications



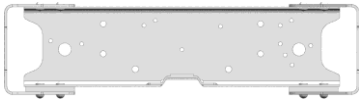


Type A-A



Type B-B

Type C-C



Type D-D

Type E-E

Figure 9

WHEEL BASE	OVERALL LENGTH	FRAME THICKNESS	CROSSMEMBER TYPE / LOCATION																					
			A		B		C		D		E		F		G			H			I		J	
															LEAF	AIR		LEAF	AIR				
152	270.5	0.31	A-A	50.2	B-B	35.6	C-C	16.3	D-D	87.0	-	-			E-E	28.3	18.4	E-E	29.6	27.5	-	-	-	65.9
170	297.6			50.2		35.6		16.3		87.0	E-E	58.1	-	-		28.3	18.4		29.6	27.5	E-E	63.1	-	75.0
188	324.6			50.2		35.6		16.3		87.0		76.1	-	-		28.3	18.4		29.6	27.5		72.1	-	84.0
200	342.5			50.2		35.6		16.3		87.0		81.2	-	-		28.3	18.4		29.6	27.5		78.0	-	89.9
212	360.6			50.2		35.6		16.3		87.0		100.1	E-E	68.4		28.3	18.4		29.6	27.5		84.1	-	96.0
224	378.5			50.2		35.6		16.3		87.0		112.1		68.4		28.3	18.4		29.6	27.5		90.0	-	101.9
236	396.7			50.2		35.6		16.3		87.0		124.1		83.2		28.3	18.4		29.6	27.5		96.1	-	108.0
248	414.6			50.2		35.6		16.3		87.0		136.1		83.2		28.3	18.4		29.6	27.5		102.0	-	113.9

NOTE: Dimensions in inches

NOTE: Air Suspension Measurement to Inside Trim Edge

Figure 10

2025 Chevrolet Low Cab Forward

Frame Chart

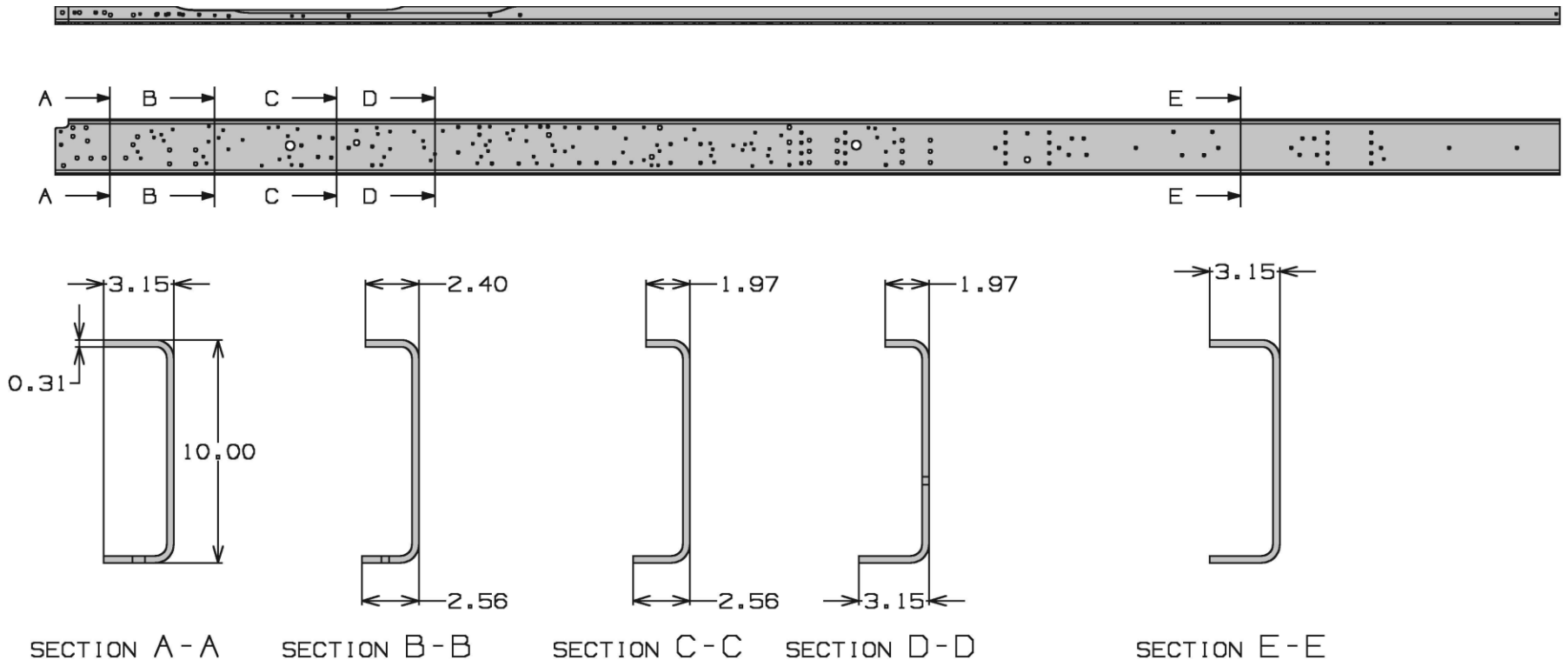


Figure 11

Wheelbase	Frame Length	Frame Thickness
152	270.5	0.315
170	297.6	0.315
188	324.6	0.315
200	342.5	0.315
212	360.6	0.315
224	378.5	0.315
236	396.7	0.315
248	414.6	0.315

Figure 12

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Diesel Multi-Leaf Spring Suspension - Top View

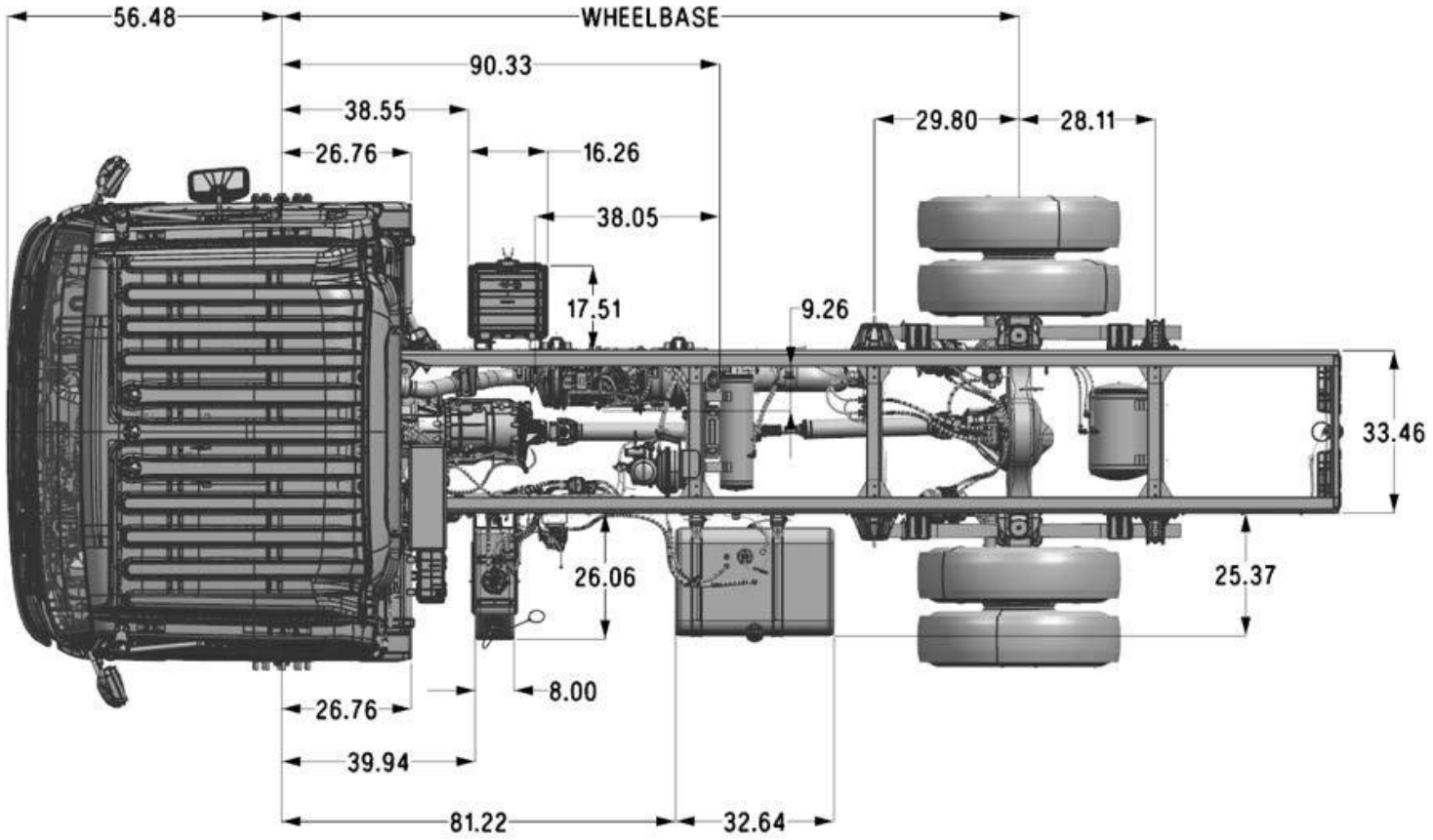


Figure 13

Note: Dimensions in inches

Diesel Multi-Leaf Spring Suspension - Left Side View

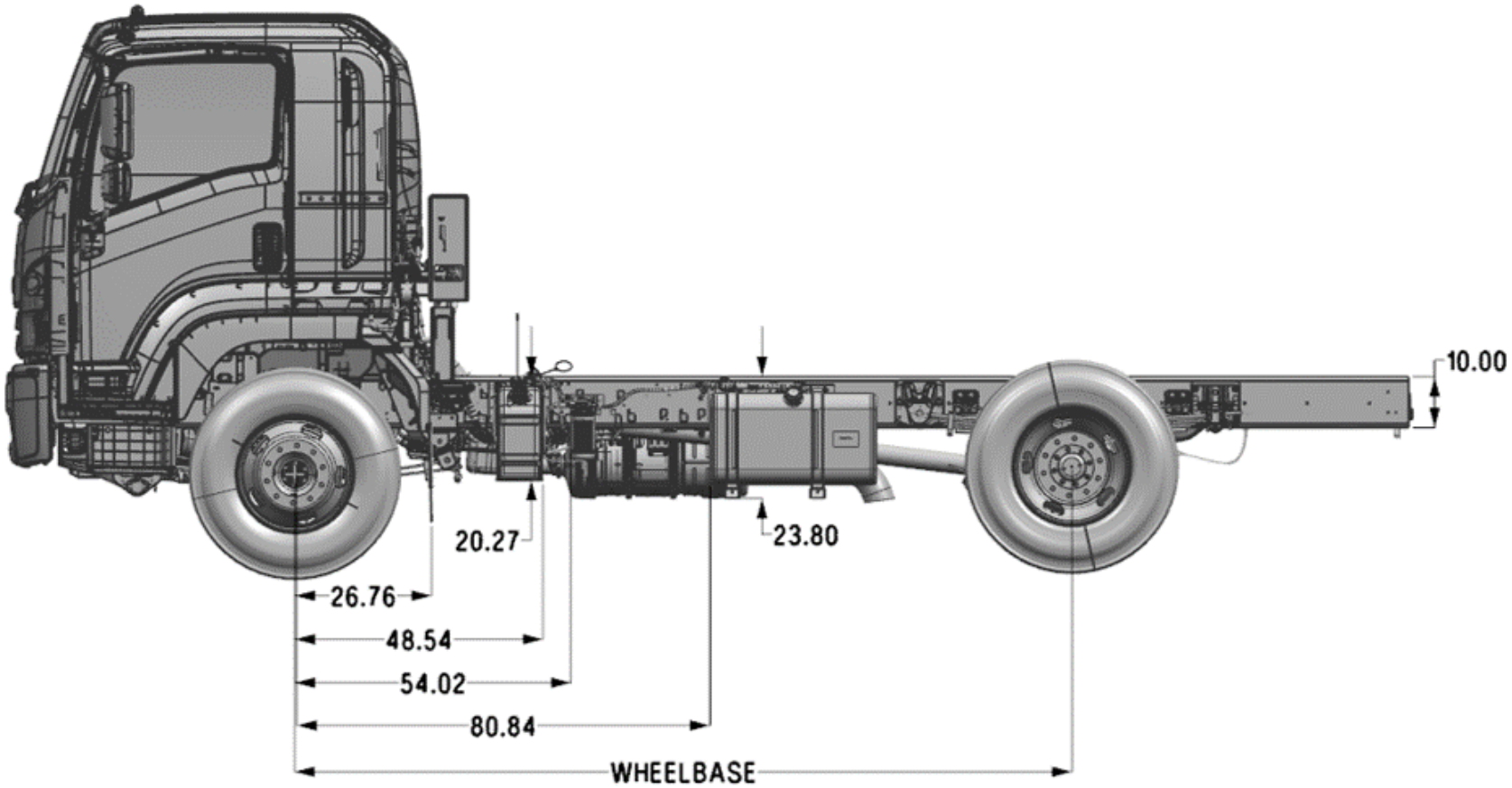


Figure 14

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

Diesel Multi-Leaf Spring Suspension - Right Side View

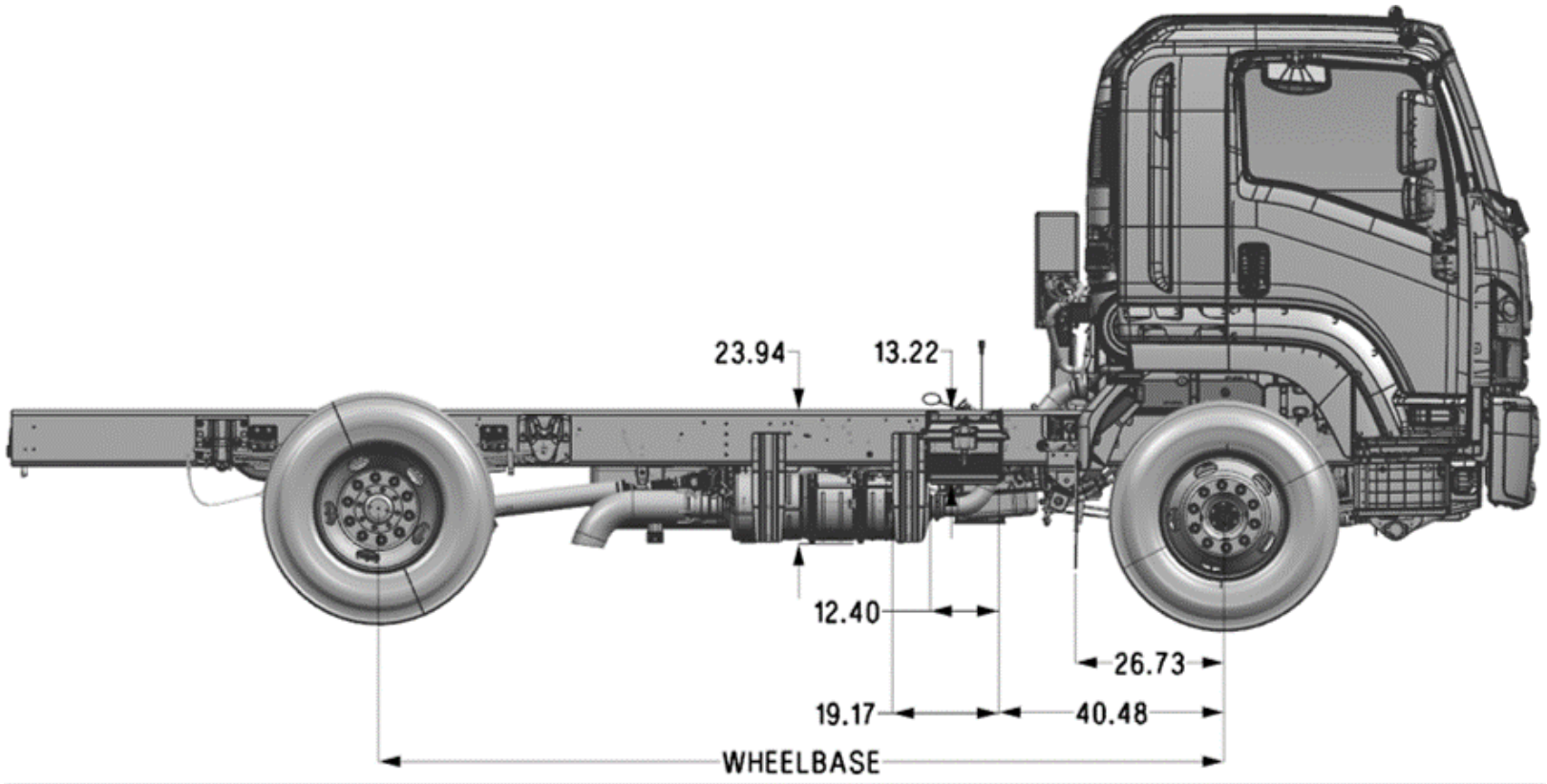


Figure 15

Note: Dimensions in inches

Diesel Air Spring Suspension - Top View

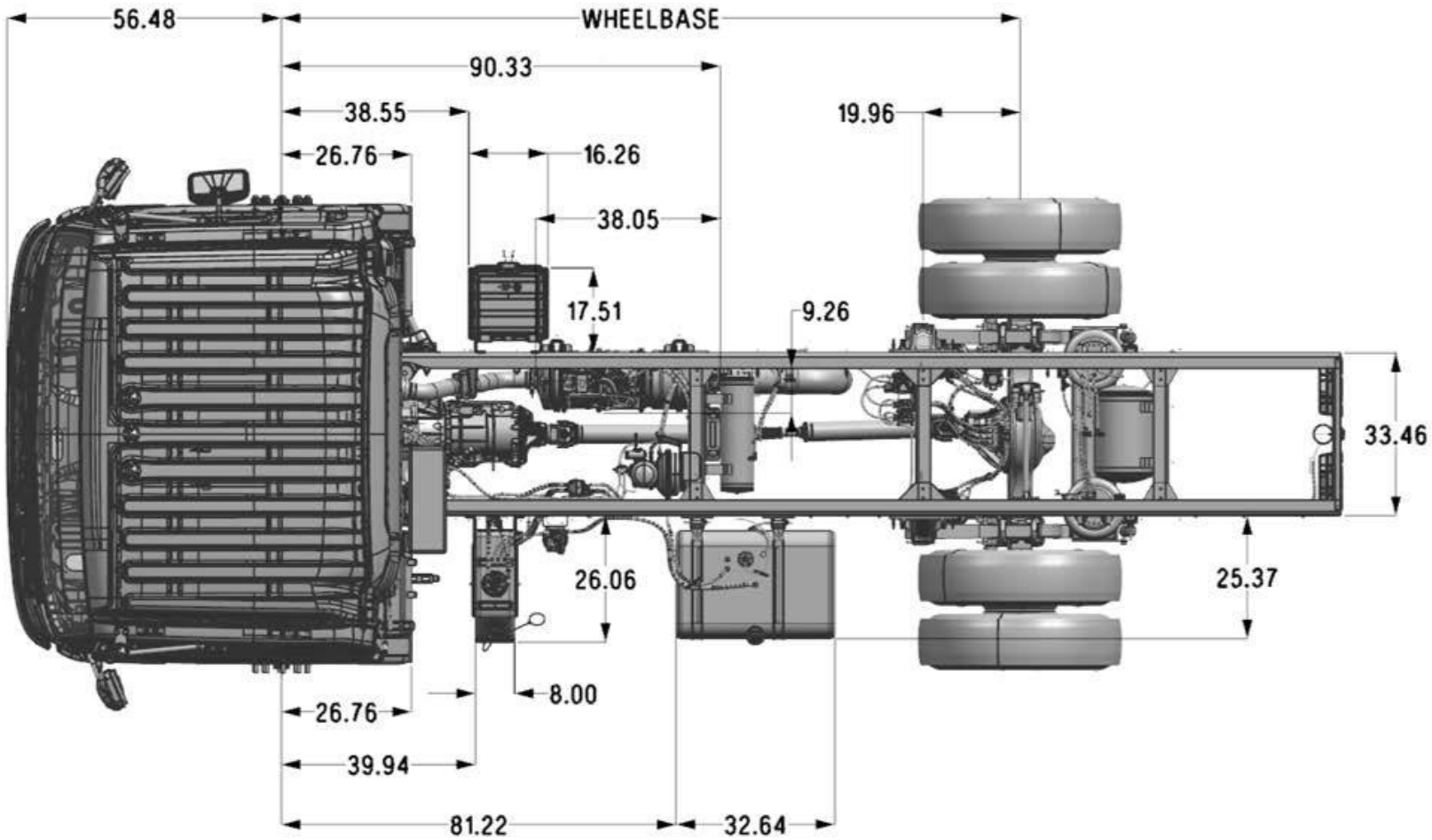


Figure 16

Diesel Air Spring Suspension - Driver Side View

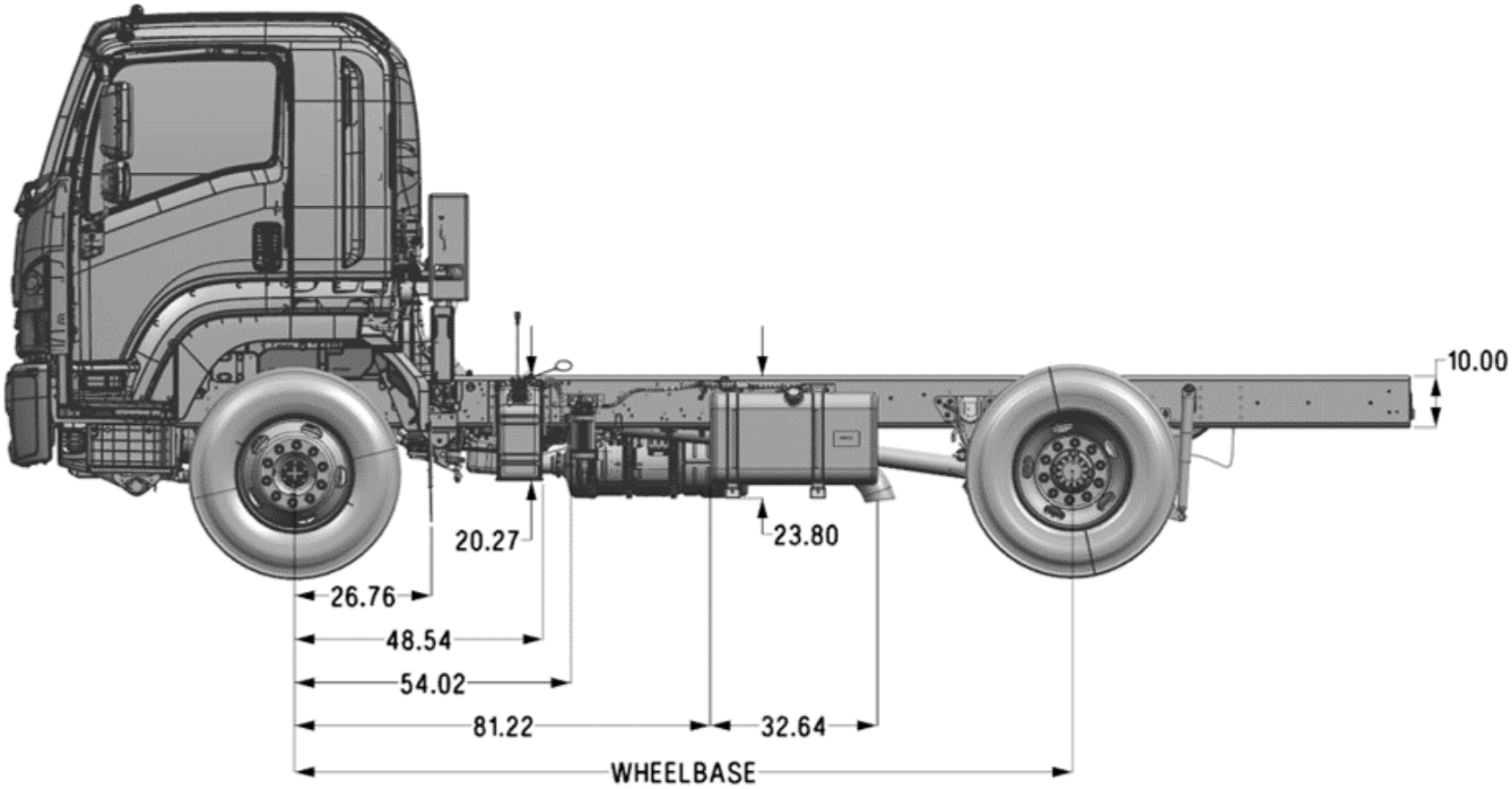
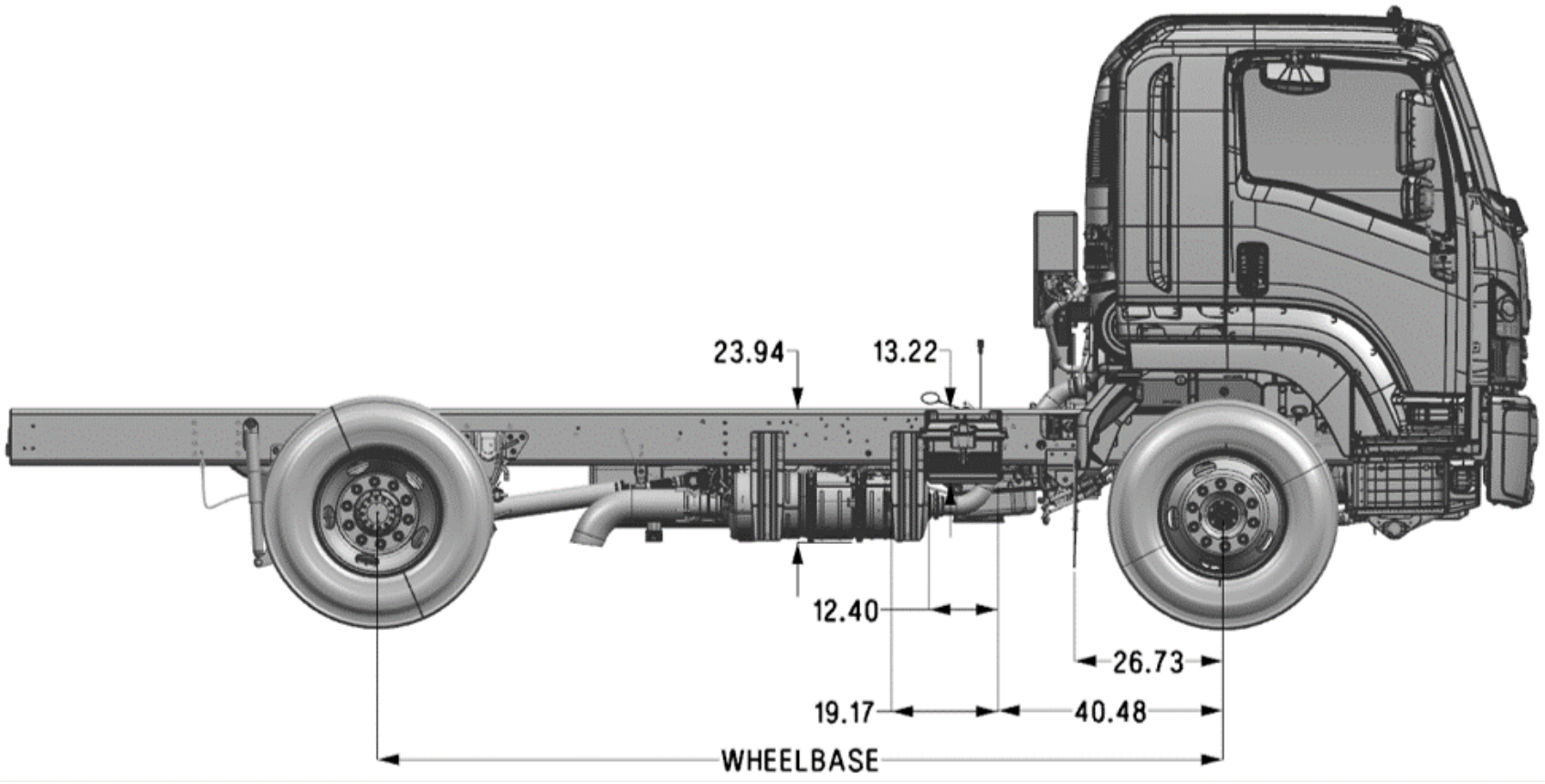


Figure 17

Diesel Air Spring Suspension - Passenger Side View

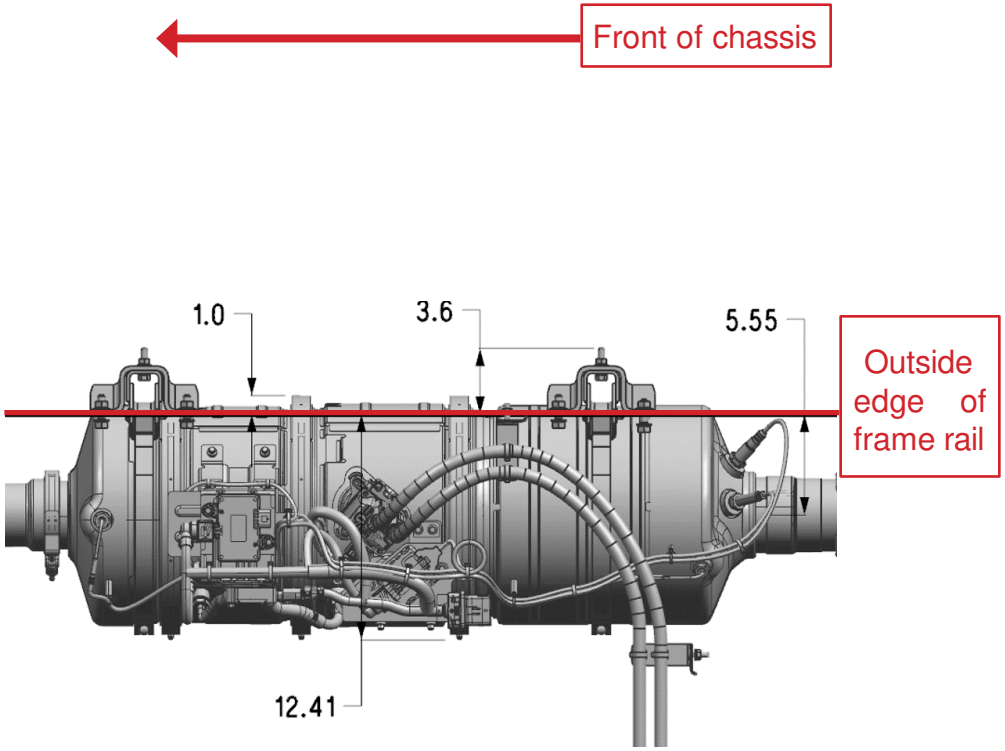


Note: Chassis shown with 255/70R22.5H tires

Figure 18

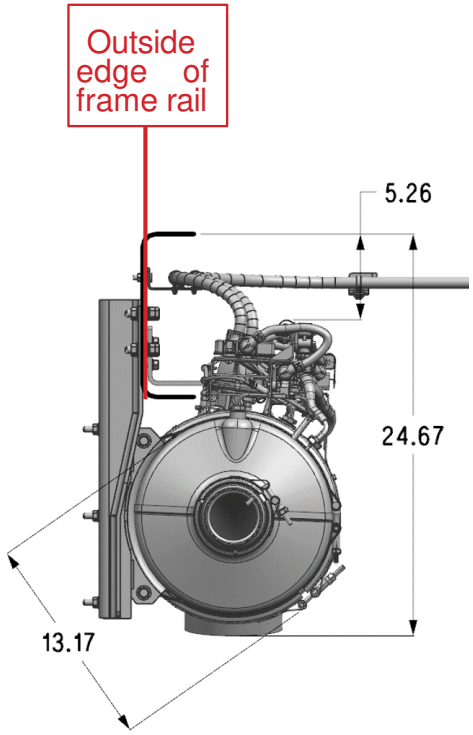
2025 Chevrolet Low Cab Forward

Exhaust System Dimensions
SCR / DPF 4HK1-TC



Note: As viewed from top

Figure 19

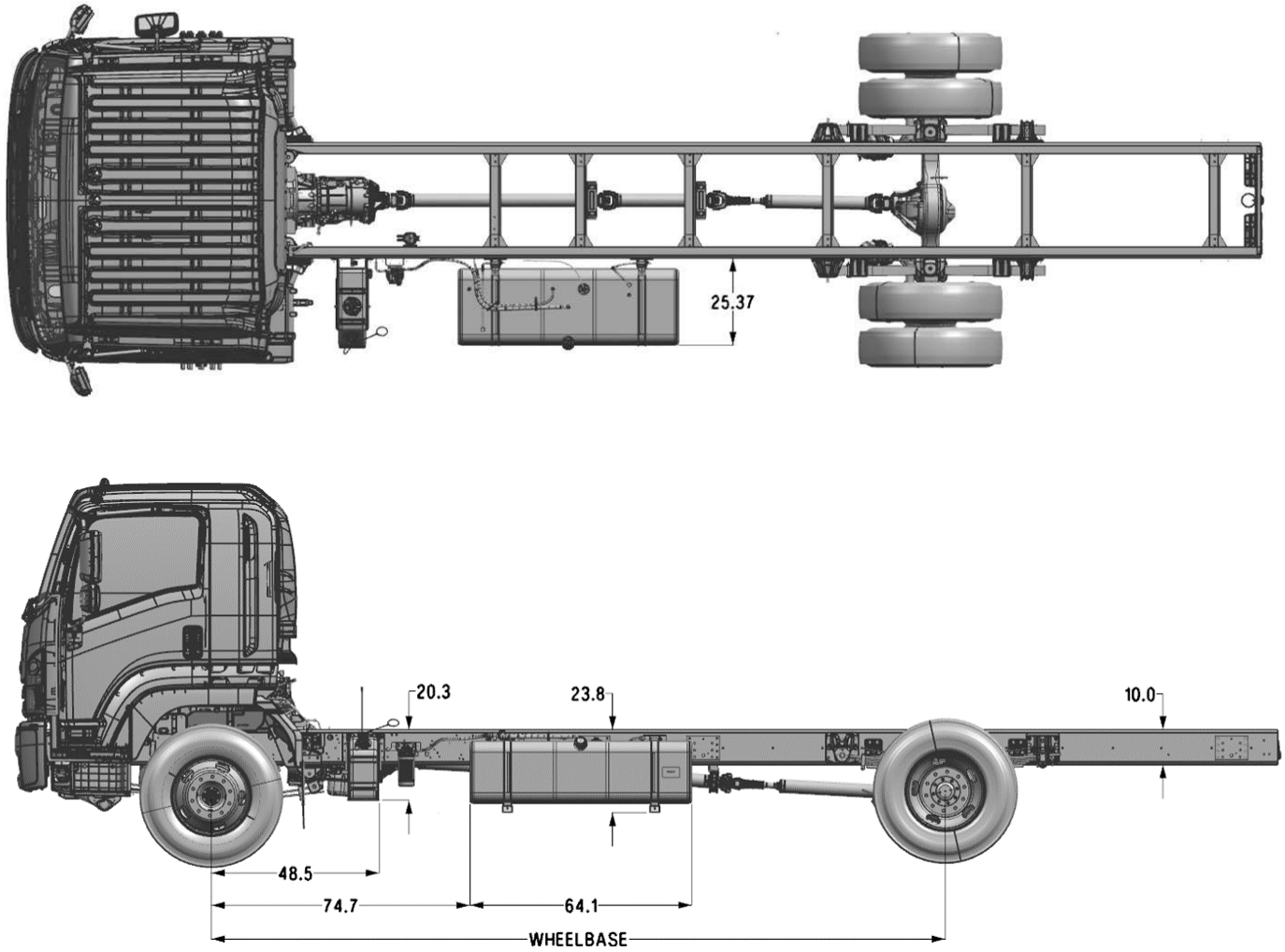


Note: As viewed from front

Figure 20

Note: Dimensions in inches

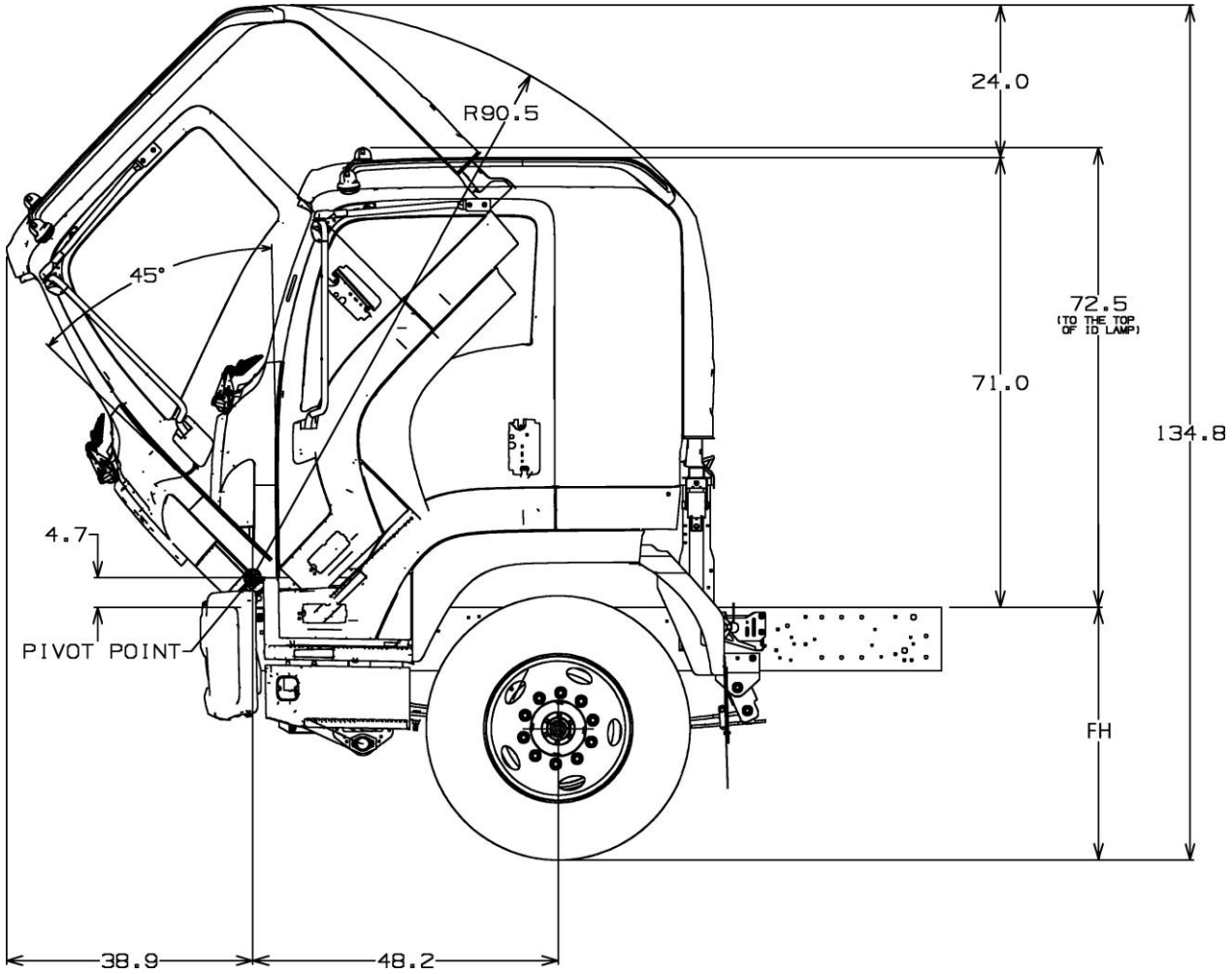
Fuel Tank Dimensions - 100 Gallon Tank



Note: Dimensions in inches

Figure 21

Cab Tilt



Note: Dimensions in inches

Figure 22

Turning Diameter

The 6500 XD & 7500 XD Diesel steering features degree inside wheel cut angle.

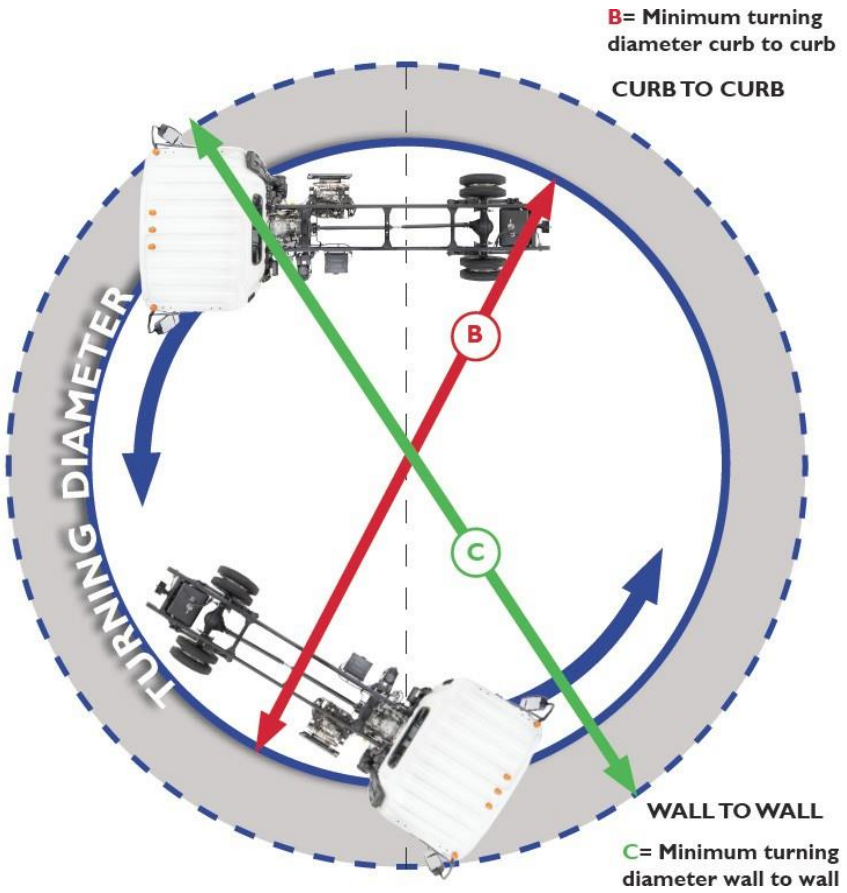


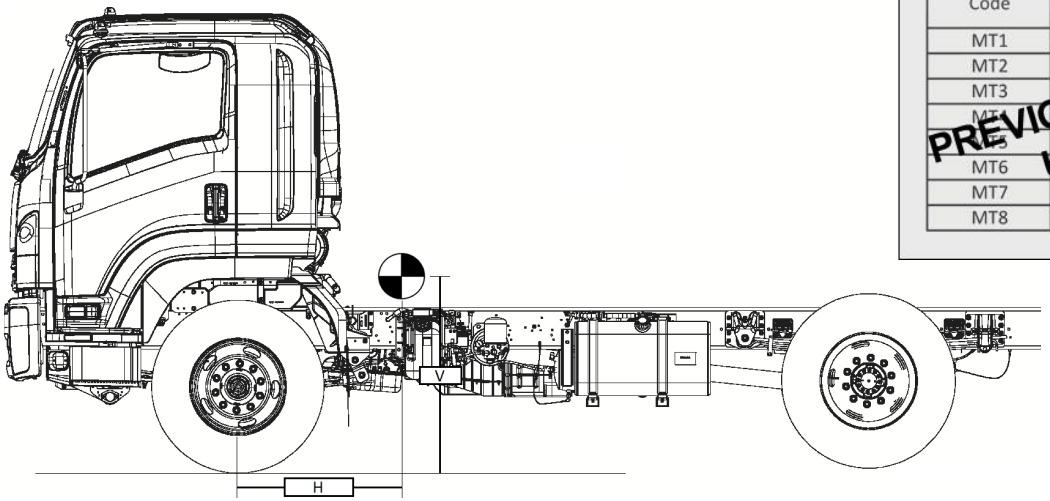
Figure 23

Wheelbase	in	152	170	188	200	212	224	236	248
Curb---to---Curb	ft	43.7	47.4	51.8	54.7	56.5	59.3	62.2	65.0
WALL---TO---WALL (Bumper)	ft	48.7	52.5	56.9	59.9	61.7	64.6	67.5	70.3
WALL---TO---WALL (96" Mirrors)	ft	48.6	52.5	56.9	59.8	61.6	64.5	67.3	70.2
WALL---TO---WALL (102" Mirrors)	ft	49.0	52.9	57.2	60.2	62.0	64.8	67.7	70.6

2025 Chevrolet Low Cab Forward

Center of Gravity

PREVIOUS MODEL YEAR DATA SHOWN - UPDATE COMING SOON



Horizontal and Vertical Center of Gravity of Chassis

Model Code	Wheelbase (in)	Vertical CG - V - (in)	Horizontal - H - (in)
MT1	152	31.0 (laden at GVWR)	55.3
MT2	170		61.9
MT3	188		69.2
MT4	200		73.6
MT5	212		78.1
MT6	224		82.5
MT7	236		87.0
MT8	248		91.5

PREVIOUS MODEL'S DATA SHOWN
UPDATE COMING SOON

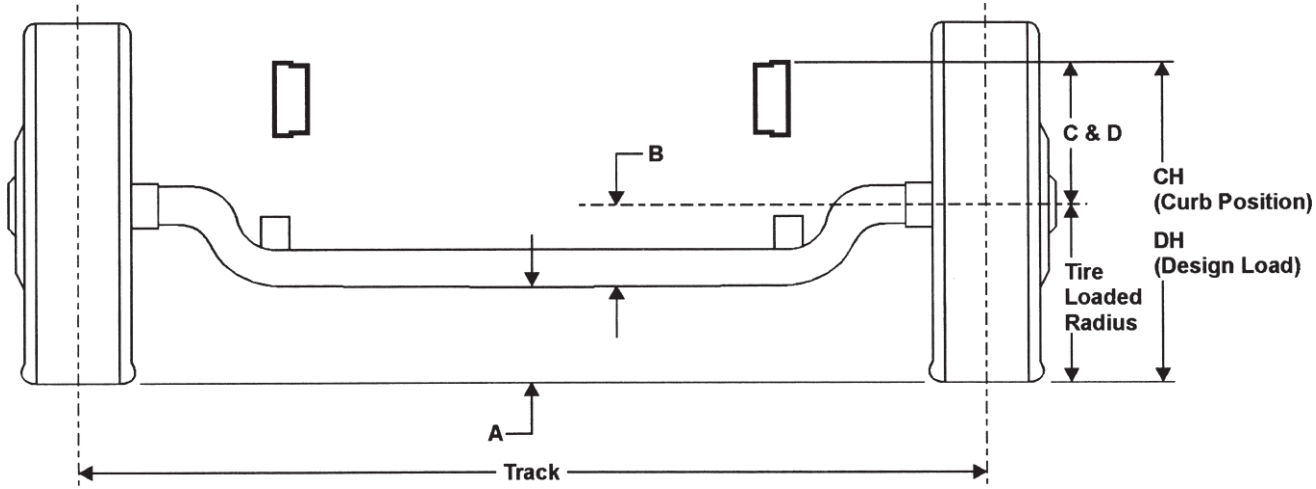
Figure 24

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Incomplete Vehicle Document (IVD).

The maximum vertical center of gravity of the total vehicle at maximum GVWR is not to exceed 70 inches (1778 mm) above the ground. If a higher completed vehicle vertical center of gravity is required, please contact GM Upfitter.

Note: Dimensions in inches

Front Axle Chart



Formulas for calculating height dimensions:

A = Tire Loaded Radius – B
C = Centerline of Axle to Top of Frame Rail at Curb Position
D = Centerline of Axle to Top of Frame Rail at Design Load
CH = C + Tire Unloaded Radius
DH = D + Tire Loaded Radius

TIRE	GVWR	GAWR	A	B	C	D	CH	DH	TRACK
11R22.5G	25,950 lb.	12,000 lb.	10.0	9.4	20.0	18.6	40.8	38.0	81.4
255/70R22.5H	25,950 lb.	11,000 lb.	7.7	9.4	20.0	18.6	38.3	35.7	81.4
11R22.5G	33,000 lb.	12,000 lb.	10.0	9.4	20.0	18.6	40.8	38.0	81.4

Figure 25

Note: Dimensions in inches

Rear Axle Chart

Definitions	
A	Centerline of axle to bottom of axle bowl.
B	Centerline of axle to top of frame rail at metal-to-metal position.
C	Centerline of axle to top of frame rail at curb position.
D	Centerline of axle to top of frame rail at design load.
E	Rear Tire Clearance: Minimum clearance required for tires measured from the top of the frame at the vehicle centerline of the rear axle, when rear wheels on one side ride over a high spot.
CH	Rear Frame Height (Curb Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.
DH	Rear Frame Height (Design Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design position.
DW	Minimum distance between the inner surfaces of the rear tires.
EW	Minimum Rear Width: Overall width of the vehicle measured at the outermost surfaces of the rear tires.
HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.
HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.
KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.
CW	Track Dual Rear Wheel Vehicle: Distance between the centerlines of the dual wheels measured at the ground-line.
KW	Clearance between body and tires.
Equations	
CH	= Tire loaded radius + C
DH	= Tire loaded radius + D
DW	= CW + 2 tire sections - tire clearance
EW	= CW + 2 tire sections + tire clearance
HH	= Tire loaded radius - A
JH	= KH - B
KH	= Tire radius + 3.0 inches
KW	= DW - 5.0 inches
LW	= 1.0 inch minimum clearance between tires and springs

SUSPENSION TYPE	TIRE SIZE	CW	A	B	C	D	E[1]
MULTI-LEAF	11R22.5G	72.1	8.1	13.8	20.8	17.9	11.4
	255/70R22.5H						10.8
AIR SPRING	11R22.5G			15.7	18.6	18.6	5.0
	255/70R22.5H						3.2

Notes:

[1] Includes 2.5" of tire chain clearance.

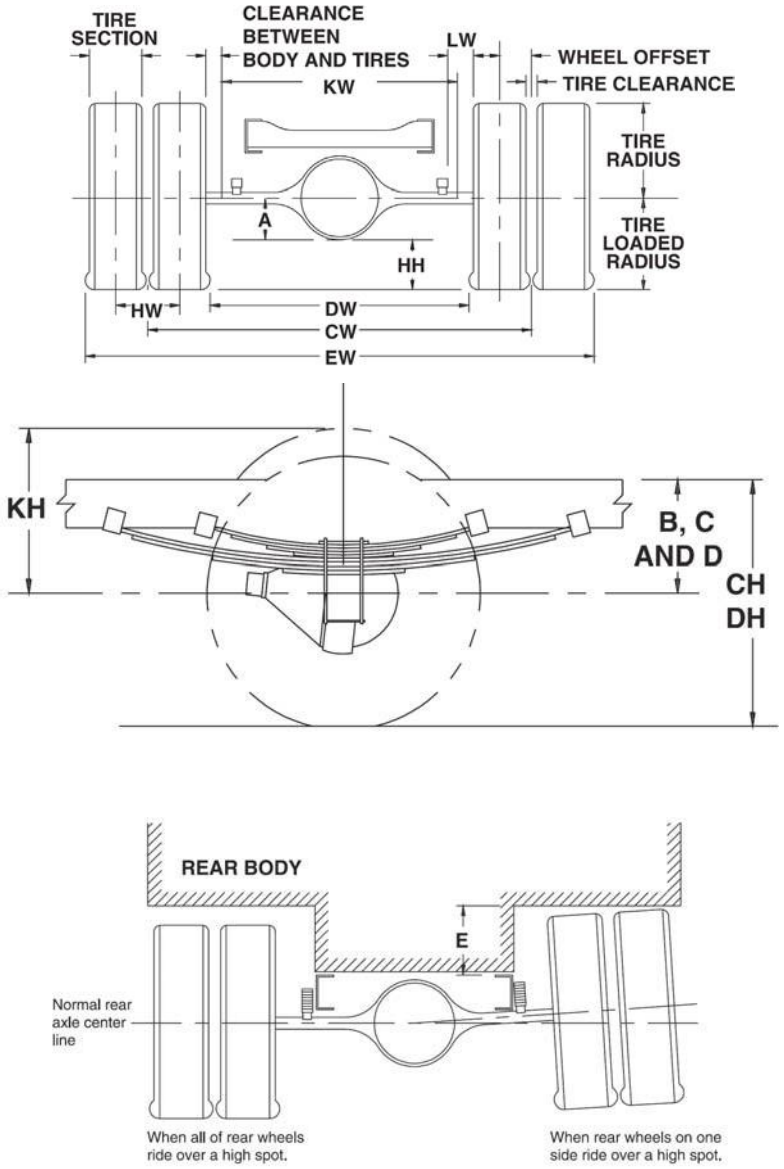


FIGURE 26

Multi-leaf Spring Suspension Deflection Charts

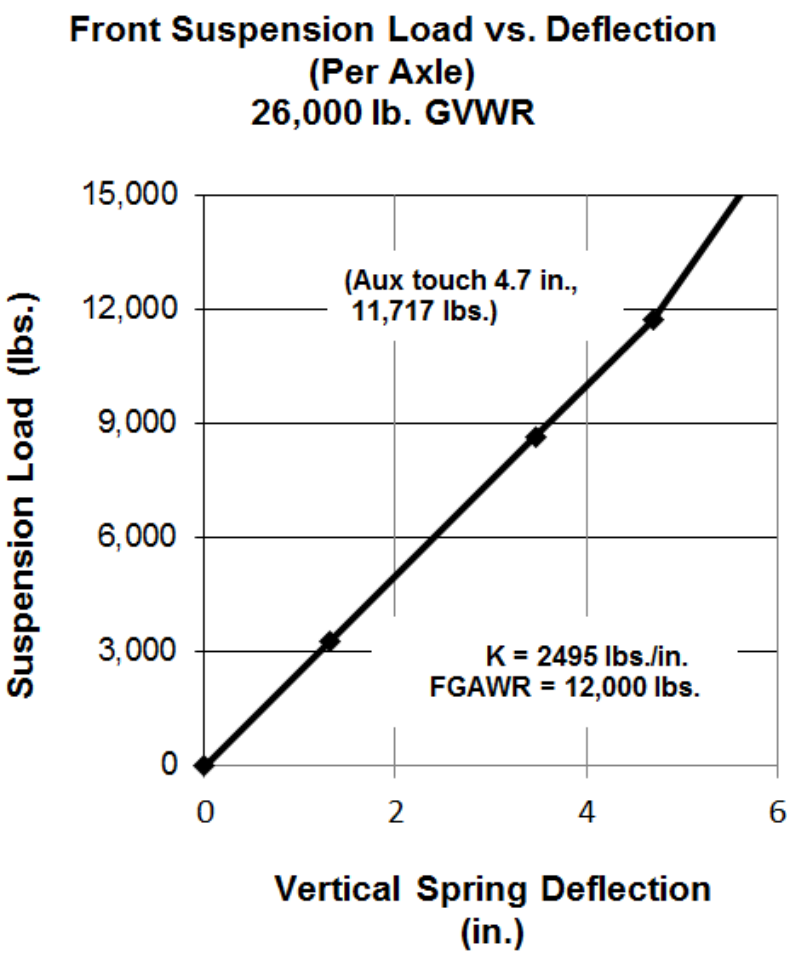


Figure 27

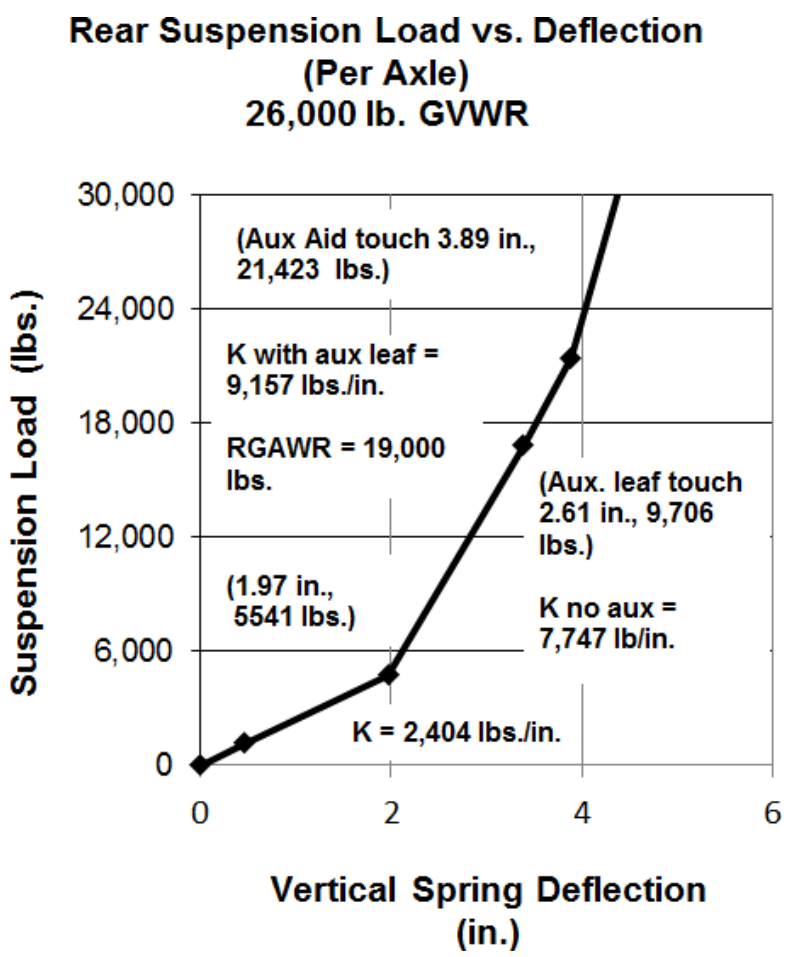


Figure 28

Multi-leaf Spring Suspension Deflection Charts

Front Suspension Load vs. Deflection
(Per Axle)
33,000 lb. GVWR

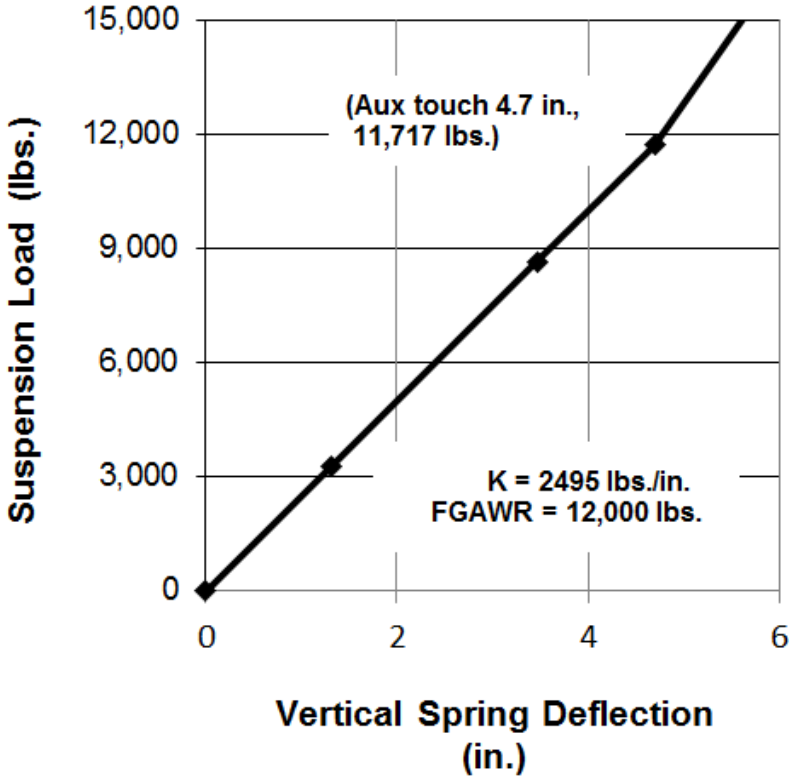


Figure 29

Rear Suspension Load vs. Deflection
(Per Axle)
33,000 lb. GVWR

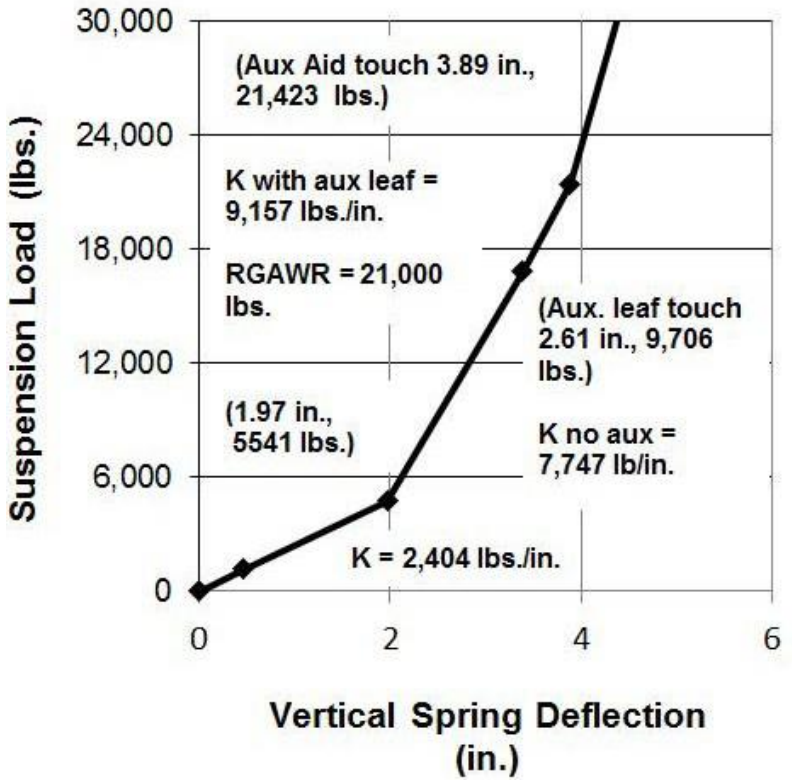


Figure 30

Tire and Disc Wheel Chart

Tire

Brand	Size	Revolutions Per Mile	Max Load Per Tire (lb)		Cold Inflation Pressure (psi)	GVWR (lb)	Radius (in)		Loaded Section Width (in)	Tire Clearance (in)	Design Rim Width (in)
			Single	Dual			Loaded	Unloaded			
Bridgestone	11R22.5G	500	6175	5840	105	25,950	19.4	20.8	12.3	0.92	8.25
Continental	11R22.5G	498	6175	5840	105	25,950	19.4	20.8	12.0	0.20	8.25
Yokohama RY023 (Front Tire)	255/70R22.5	570	5510	5070	120	25,950[1]	17.1	18.25	10	2.83	7.5
Yokohama TY303 (Drive Tire)	255/70R22.5	563	5510	5070	120	25,950	17.3	18.5	10	2.83	7.5

Disc Wheel

Brand	Size (in.)	Material	Rim Type	Bolt Holes	Bolt Circle Diameter (in)	Front & Rear Nut Size[2]	Front & Rear Stud Size	Nut/Stud Torque Specs (ft-lb)	Inner Circle (in)	Wheel Outside Offset (in)	Disc Thickness (in)
Accuride	22.5 x 8.25	2-piece welded steel	Hub-piloted, dual-mounting, 15º tubeless	10-Hole	11.25	33mm Hex	M22 x 1.5	475 (644 N-m)	8.66	6.60	0.437
Alcoa[3]	22.5 x 8.25	1-piece aluminum	Hub-piloted, dual-mounting, 15º tubeless	10-Hole	11.25	33mm Hex	M22 x 1.5	475 (644 N-m)	8.66	6.60	0.748

NOTES:

[1] Front GAWR is reduced to 11,000 lb. with 255/70R22.5H tires equipped.

[2] Outside dimension wrench size.

[3] Aluminum wheel options will include (4) wheel spacers to prevent dissimilar metal corrosion.

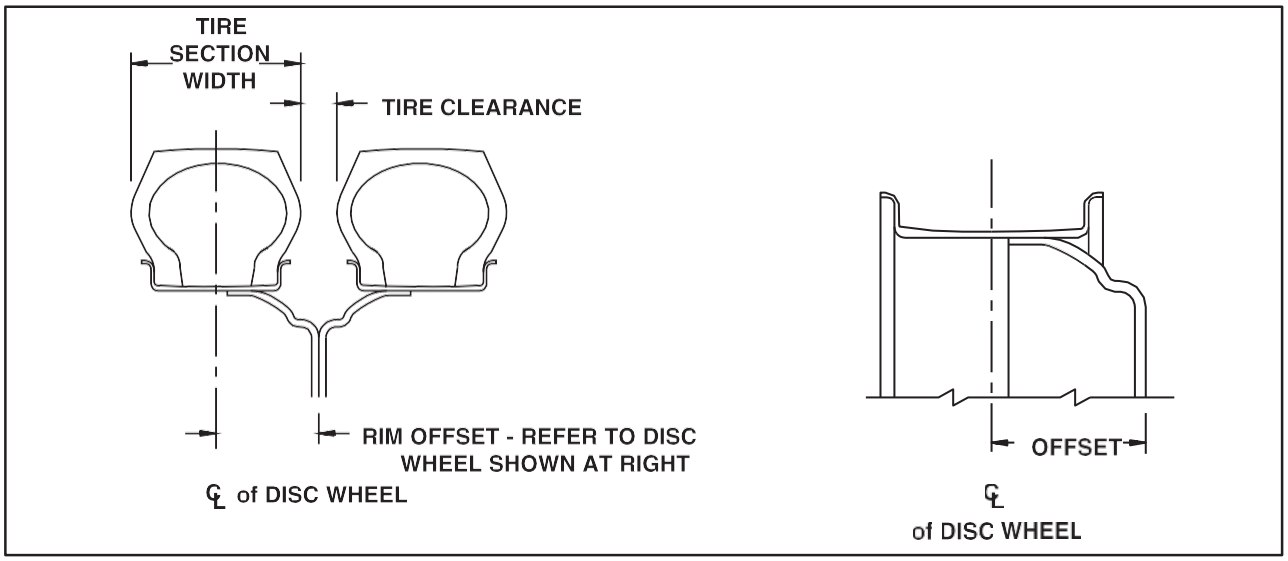


Figure 31

2025 Chevrolet Low Cab Forward

Propeller Shaft Angles

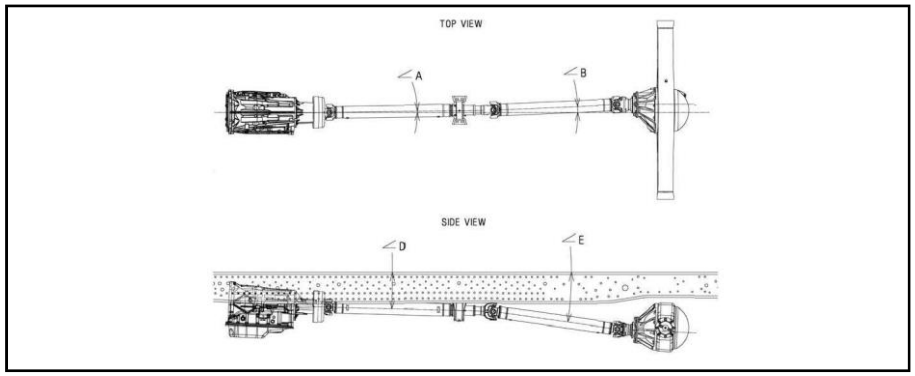


Figure 32

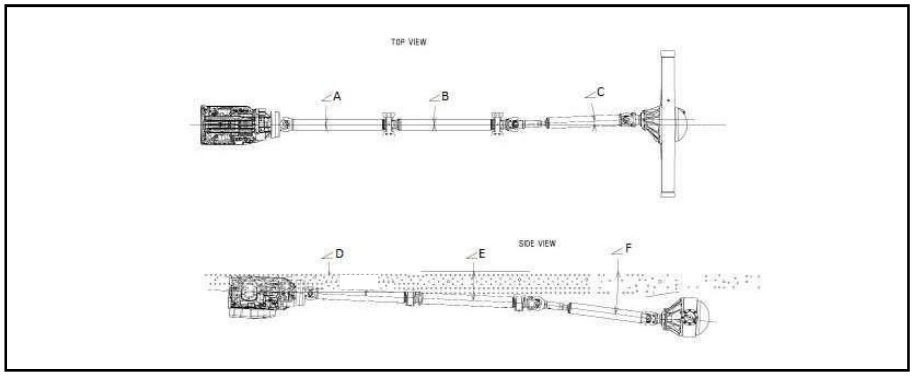


Figure 33

Wheel Base (in.)	Top View			Side View				
	∠A	∠B	∠C	∠D	∠E	∠F	∠Trans.	∠Rear Axle
152	0	1.7	n/a	5.52	8.89	n/a	4	5.42
170	0	1.2	n/a	5.52	6.30	n/a	4	5.42
188	0	1.4	n/a	5.85	4.24	n/a	4	5.42
200	0	0	0.8	5.52	3.87	4.97	4	5.42
212	0	0	1.0	3.24	4.94	4.96	4	5.42
224	0	0	0.8	3.24	4.93	3.61	4	5.42
236	0	0	0.7	3.24	3.76	3.84	4	5.42
248	0	0	0.7	3.24	4.49	2.13	4	5.42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

2025 Chevrolet Low Cab Forward

Propeller Shaft Lengths

Wheelbase	152	170	188	200	212	224	236	248
No. of Shafts	2	2	2	3	3	3	3	3
Shaft #1 O.D.	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thickness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Length	35.4	35.4	60.5	35.4	60.3	60.3	60.3	60.3
Type	A	A	A	A	A	A	A	A
Shaft #2 O.D.	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thickness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Length	44.1	62.0	54.8	31.8	31.9	43.8	41.1	53.0
Type	B	B	B	A	A	A	A	A
Shaft #3 O.D.	N/A	N/A	N/A	4.00	4.00	4.00	4.00	4.00
Thickness	N/A	N/A	N/A	0.095	0.095	0.095	0.095	0.095
Length	N/A	N/A	N/A	60.0	47.1	47.2	61.8	61.9
Type	N/A	N/A	N/A	B	B	B	B	B

Figure 34

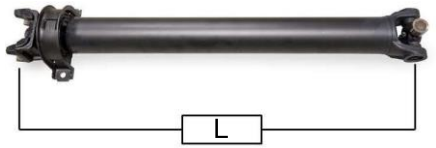
Type	Description	Illustration
Type **A**	1st shaft in 2 or 3-Piece Driveline 2nd shaft in 3-Piece Driveline	
Type **B**	2nd shaft in 2-piece Driveline 3rd shaft in 3-Piece Driveline	

Figure 35

Note: Dimensions in inches

Brake System Diagram

Legend FTR Brake System

(1) Wheel Speed Sensors (WSS)
(2) Speed Sensor Rotor
(3) Right Front Brake Pressure Modulator Valve
(4) Electronic Brake Control Module (EBCM)
(5) Right Rear Brake Pressure Modulator Valve
(6) Left Front Brake Pressure Modulator Valve
(7) Left Rear Brake Pressure Modulator Valve

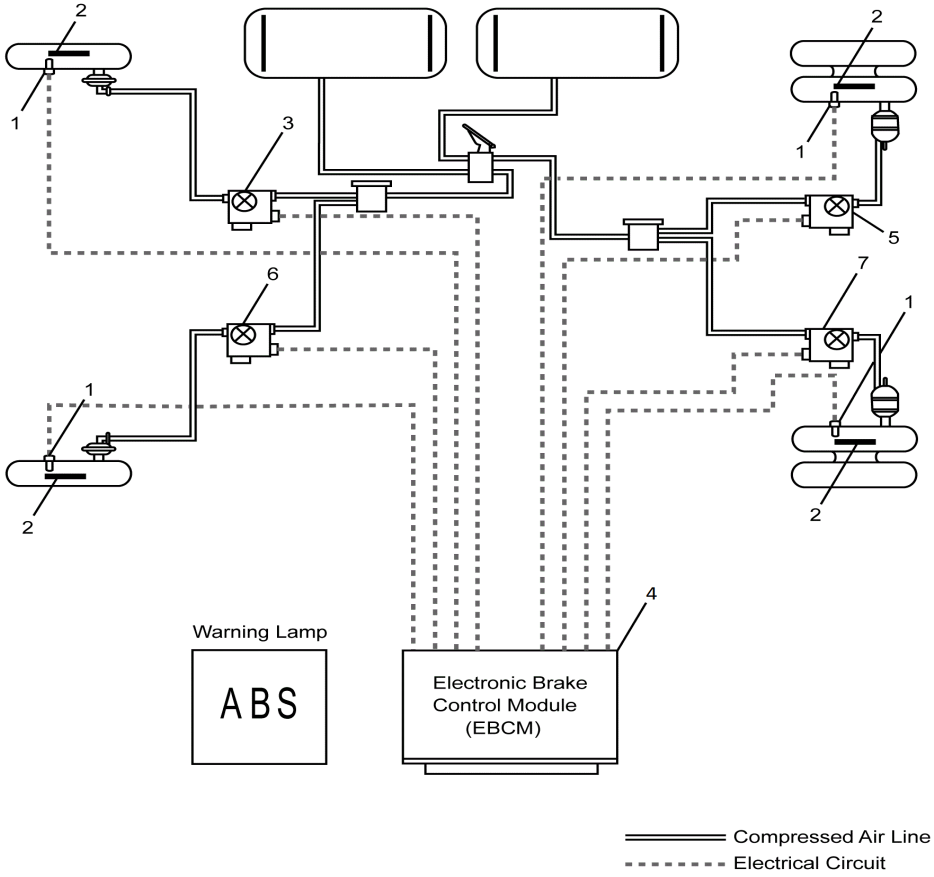


Figure 36

2025 Chevrolet Low Cab Forward

4500 XD & 5500 XD In-Frame Diesel Fuel Fill Installation Instructions

1. Disconnect battery.
2. Loosen hose from the tie downs. Remove caps from plate on rail.
3. Install hoses onto the plate.
4. Extend hose out from the driver side of the rail to body rail.
5. The filler neck must be mounted to allow the fill plate bracket to be parallel to the frame horizontal.
6. Cover with protector wrap and secure with tie wraps.
7. Filler hose is set for 102 inches outside width body.
8. Filler neck (Figure 9 or 14 - Dimension A) must be between 6.85 inches and 8.5 inches above frame.
9. Secure the filler plate to the bottom of the body and check for leaks.
10. Ensure that fill hose does not sag, creating an area where the fuel could pool in the fill hose.
11. Reconnect battery.

Fuel Tank Cautions

1. **Fuel fill kit must be installed on cab chassis if it will be driven for an extended distance.**
2. **Fuel tank kit provides venting for the fuel tank.**
3. **DO NOT RESTRICT OR KINK THE FUEL TANK VENT HOSE. Operating this vehicle with a restricted or kinked fuel tank vent hose may cause serious damage to the fuel tank and/or fuel injection pump. Continued operation may cause engine failure.**

4500 XD & 5500 XD Diesel Ultra Low Sulfur Diesel Label

Per EPA Title 40, Part 86, 86:007—35(c),
The decal illustrated below must be installed on the vehicle.
The decal is included in the fuel fill parts box.

INSTRUCTIONS FOR DECAL PLACEMENT:

1. The decal must be placed as close as possible to the fuel inlet and be **clearly visible.**
2. The decal should be placed above or to the side of the fuel cap to avoid corrosion by possible contact with fuel.
3. The decal may be placed on aerodynamic fairings, bodies, etc. as long as the decal is clearly visible and in close proximity to the fuel inlet.
4. For installed bodies that have a fuel door , the decal should be placed above or to the side of the fuel door.

Thoroughly clean the area of all grease, dirt, etc. before application of the decal. Apply the decal at room temperature, 65° to 75° F.

Figure 1

2025 Chevrolet Low Cab Forward

4500 XD & 5500 XD Diesel Through the Rail Fuel Fill Frame Hole

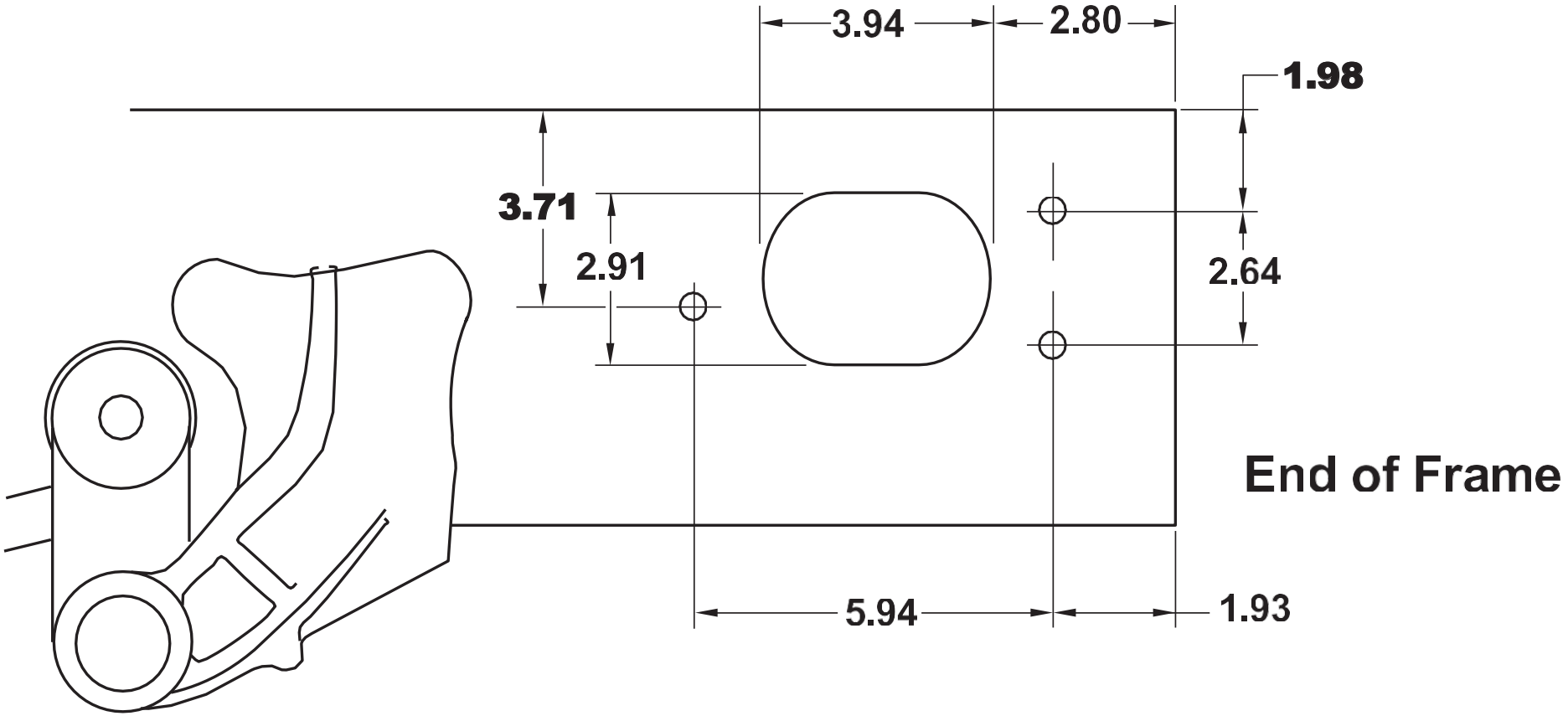


Figure 2

Note: Dimensions in inches

2025 Chevrolet Low Cab Forward

4500 XD & 5500 XD Series Diesel Installation Instructions and Considerations

The fuel tank shutter valve was a new component for 2011 model year. This component is meant to improve fuel splash-back performance of the fuel system. In the 2012 model year a running change was made, and this valve was relocated from the fuel tank inlet to the inlet (outboard side) of the fuel filler neck bulkhead assemble that is bolted to the left hand frame rail as shown in Figure 3. This plastic valve snaps into place in the inlet of the frame mounted fuel pipe. The valve should be installed so that the plastic clip is at the top of the valve, so that the flap door opens up, as shown in Figure 4.

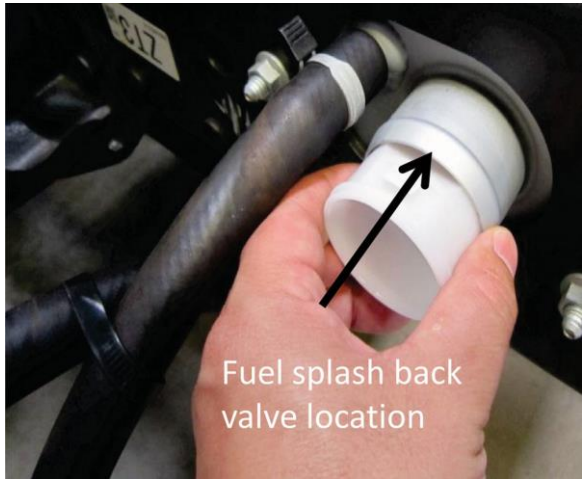


Figure 3

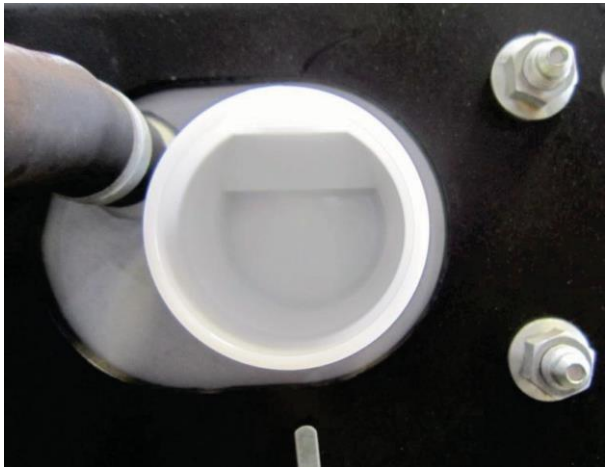


Figure 4

The fuel filler hose should be installed flush against the tank. The clamp should be installed between 1/16” and 3/8” from the tank. As shown in Figure 10 below.

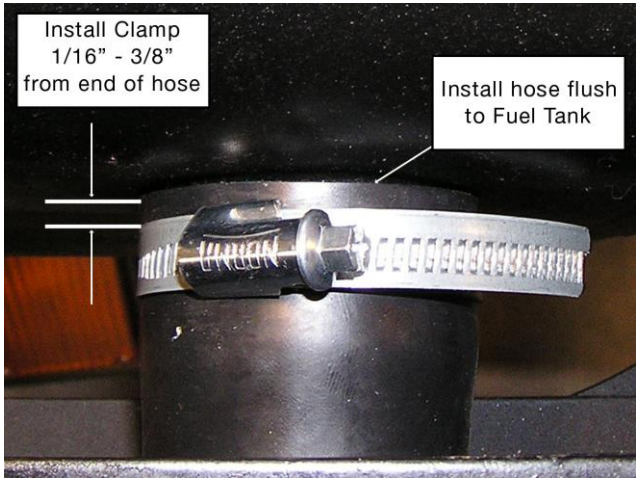


Figure 5

2025 Chevrolet Low Cab Forward

4500 XD & 5500 XD Diesel Roll-Over Valve Tubing

The roll-over valve has a hose attachment that will make this valve less sensitive to water intrusion. In order for the valve to work properly, it is critical for the hose to be installed to the rollover valve. The proper assembly of the outer hose is shown below in Figure 6.

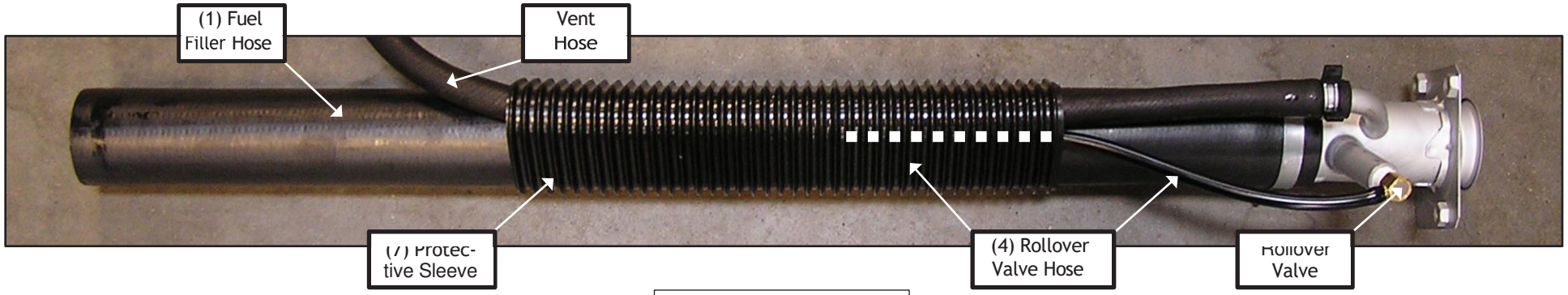


Figure 6

Filler Neck Installation

The fuel filler neck must be installed with the proper orientation on the body. The neck should be installed with the roll-over valve pointing upward, with the bottom edge of the filler neck oriented parallel to the ground, plus 33 to minus 7 degrees. See Figure 7 below for the proper orientation.

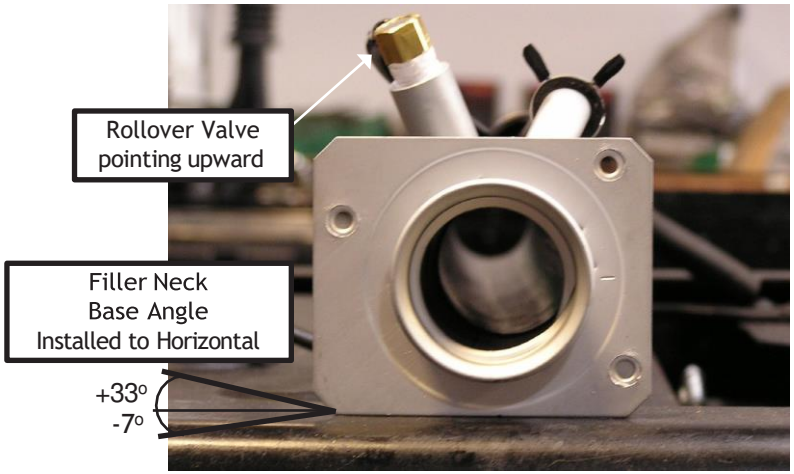


Figure 7

2025 Chevrolet Low Cab Forward

2025MY 4500 XD & 5500 XD Diesel Fuel Fill Kit Parts List

Please review these instructions prior to installation of the fuel filler kit.

Parts Kit: There are two separate parts kits used for the 2011 and later model year LCF diesel products. See parts list below.

FUEL FILLER KIT, 4500 XD and 5500 XD See Dealer			
ITEM #	**PART NAME**	**PART #**	**QTY**
1	HOSE: FUEL FILLER NECK	See Dealer	1
2	HOSE: FUEL FILLER	See Dealer	1
3	CAP: FILLER	See Dealer	1
4	HOSE: ROLL-OVER VALVE	See Dealer	1
5	NECK ASM: FUEL FILLER	See Dealer	1
6	CLIP: JOINT	See Dealer	4
7	PROTECTOR: FILLER HOSE	See Dealer	1
8	CLIP: BAND, HOSE FIXING	See Dealer	2
9	CLIP: RUBBER, HOSE	See Dealer	1
10	BRACKET: FILLER NECK	See Dealer	1
11	SCREW: FILLER NECK	See Dealer	3
12	CAUTION PLATE	See Dealer	1
13	SHUTTER: FUEL TANK	See Dealer	1

Figure 8

2025MY 4500 XD & 5500 XD Diesel Rear View Fuel Fill

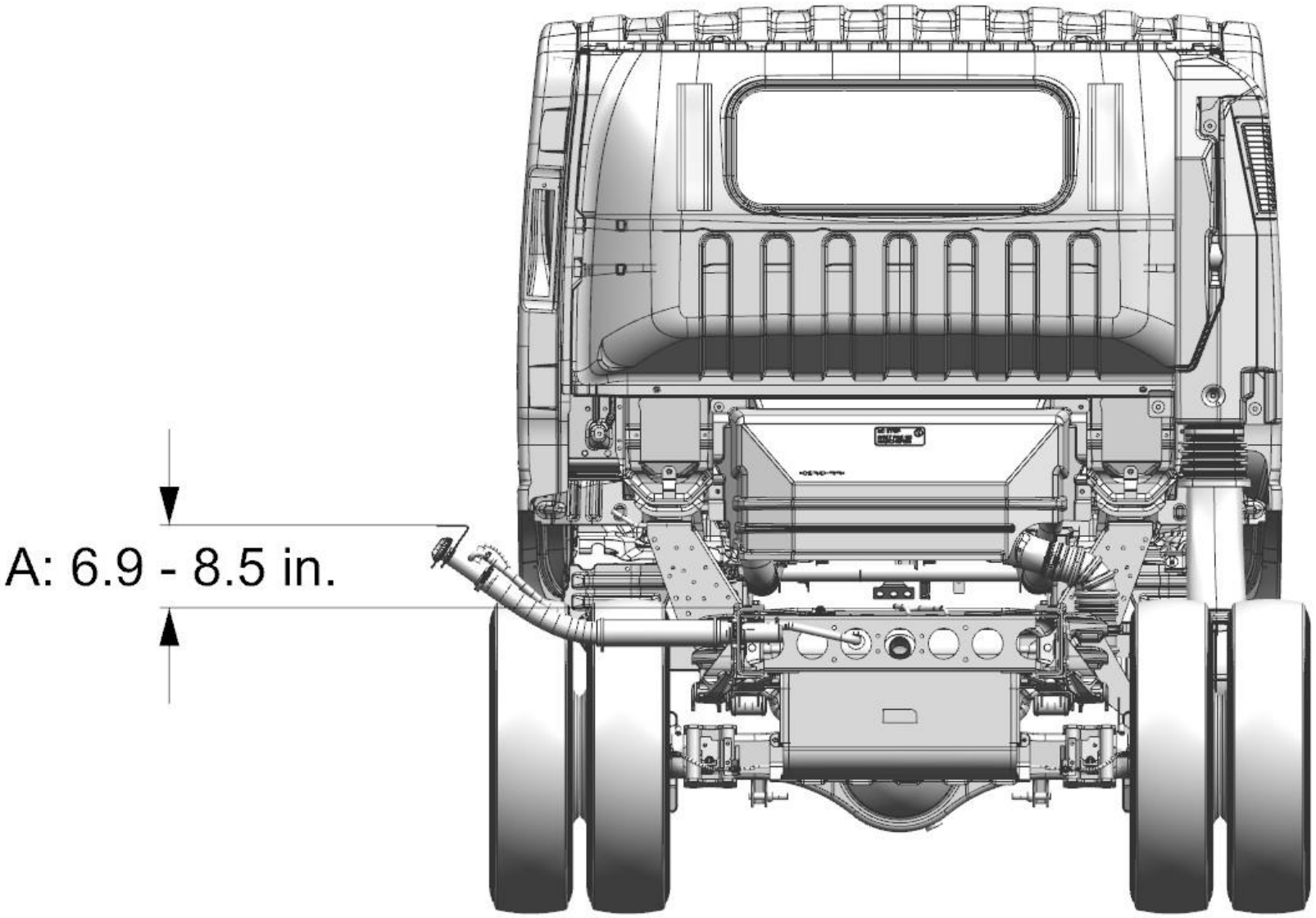


Figure 9

2025MY 4500 XD & 5500 XD Diesel Top View Fuel Fill

Dimensions:
B = 29.75 inches (756 mm)
C = 34.00 inches (863 mm)
D = 39.29 inches (998 mm)
E = 33.86 inches (860 mm)
F = 50.60 inches (1,285 mm)

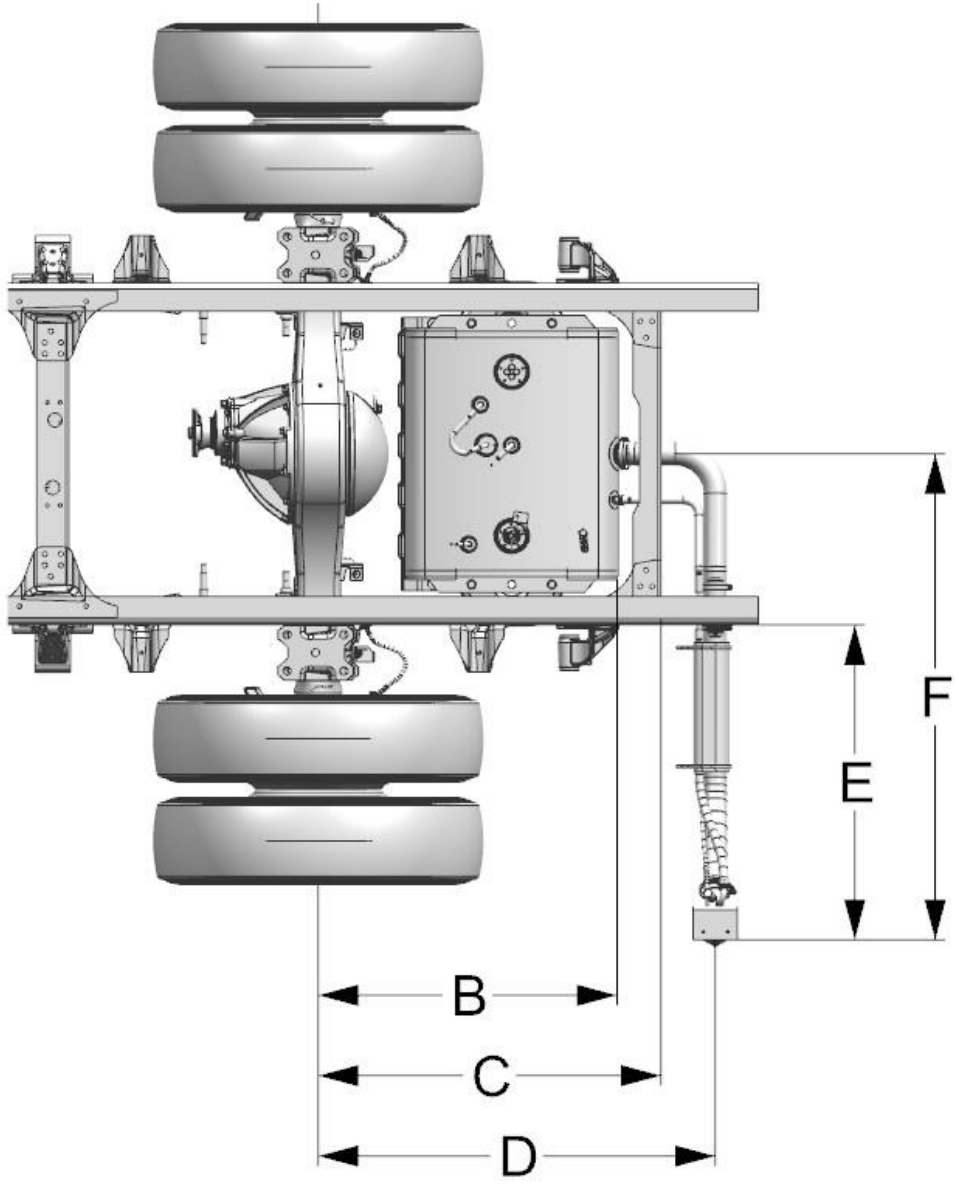
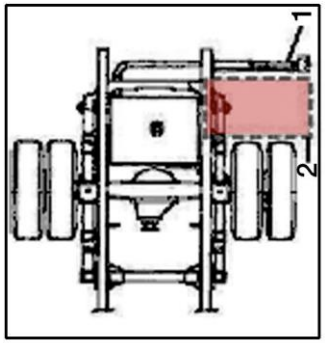


Figure 10

2025MY 4500 XD & 5500 XD Diesel Hose Modification for Various Width Bodies and Fuel Fill Vent Protection



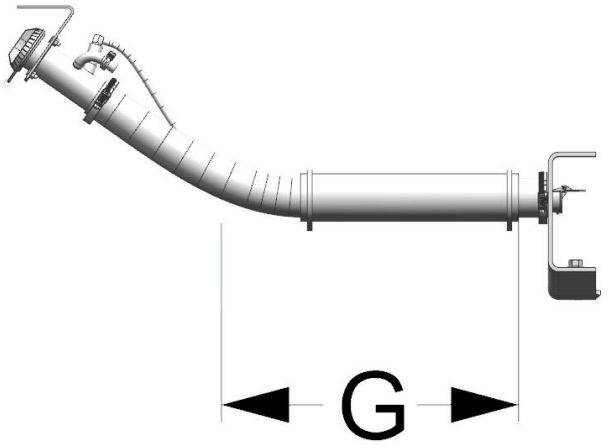
Fuel fill vent and neck should be protected from road spray

1. FUEL FILLER NECK
2. RECOMMENDED MUD FLAP MOUNTING AREA (RED ZONE).

Figure 11

Dimension: G

102 inch wide body remove 0 inches
96 inch wide body remove 3 inches
90 inch wide body remove 5 inches
86 inch wide body remove 8 inches
80 inch wide body remove 8 inches



NOTE: Shorten hose by dimension "G" based on chart at left.

Figure 12

2025 Chevrolet Low Cab Forward

3500, 4500 & 5500 Gas In-Frame Fuel Fill Installation Instructions

1. Disconnect battery.
2. Remove the short filler hose and the short breather hose from the breather and fuel filler pipes and the filler neck bracket assembly.
3. Filler kit hoses are designed for the 102 inch wide body width. Modify the hoses as required to fit the desired body width (Figure 20 - Dimension D).
4. Install flexible filler hose (Item 1) to fuel filler pipe and filler neck bracket assembly using existing screw clamps.
5. Install flexible breather hose (Item 2) to fuel breather pipe and filler neck bracket assembly using new clamps (item 3)
6. The filler neck must be mounted to allow the filler neck bracket to be parallel to the frame horizontal.
7. Filler neck (Figure 14 - Dimension A) must be between 6.85 inches and 8.5 inches above frame.
8. Secure the filler plate and ground strap to the bottom of the body and check for leaks. Ground straps should be connected to brackets or flanges, not the fuel filler hose or breather hose. Ground straps should have a minimum of 10mm clearance, in all deflected positions, from any metallic portions of the fuel filler hose or breather hose assembly.
9. Ensure that fill hose does not sag, creating an area where the fuel could pool in the fill hose.
10. Reconnect battery.

Fuel Type

Use regular unleaded gasoline rated at 87 octane or higher that meets specification ASTMD4814 in the U.S. Blended gasoline is suitable for use in the Chevrolet LCF Gas Chassis.

Ethanol is ethyl or grain alcohol. Properly-blended fuel that is no more than 10% ethanol is fine for your vehicle.

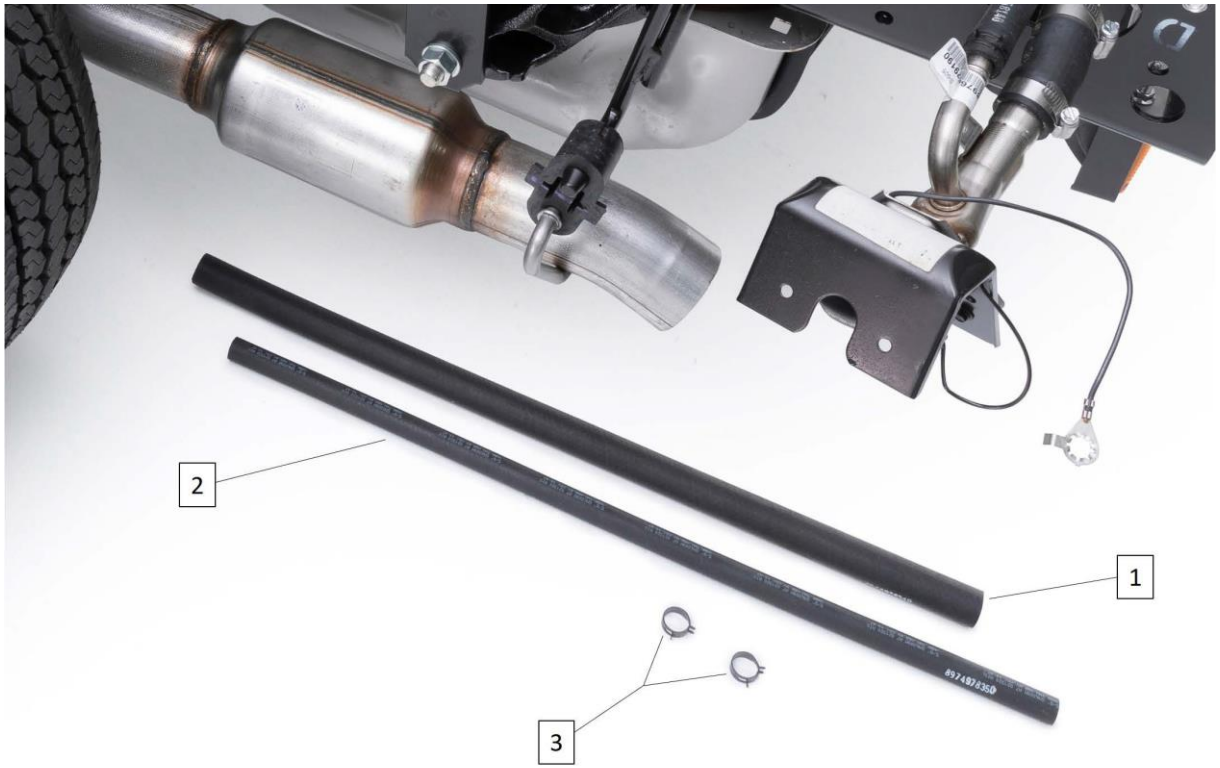
NOTICE: Fuel that is 15% Ethanol is not suitable for your vehicle. Fuel that is than 85% Ethanol is not suitable for your vehicle.

Methanol is methyl or wood alcohol.

NOTICE:

- 6.6L Engine: Fuel that is more than 5% methanol is bad for your vehicle. And even at 5% or less, there must be “co-solvents” and corrosion preventives in this fuel to help avoid damage to the fuel system from methanol.
- 6.0L Engine: Methanol-Gasoline mixtures are not suitable for your vehicle.

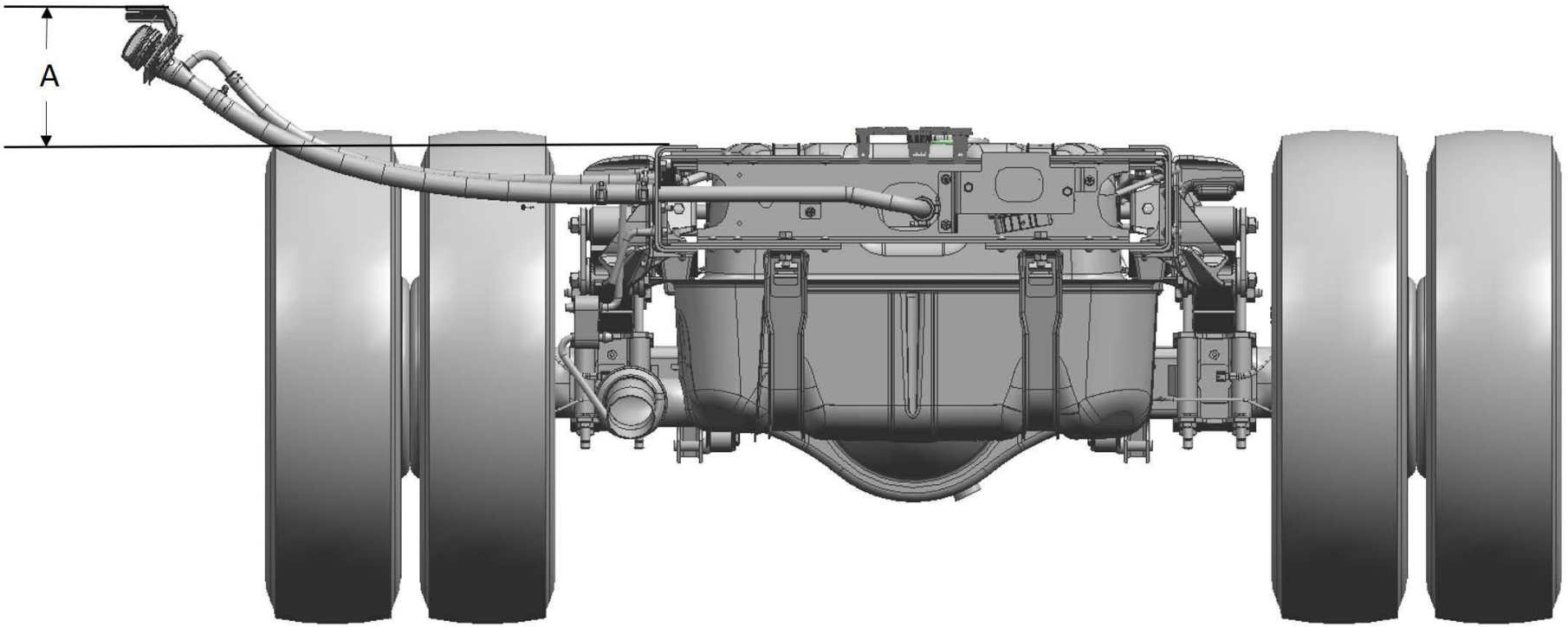
3500, 4500 & 5500 Gas Fuel Fill Parts Illustration



FUEL FILLER KIT – 3500 HG & 4500 HG GAS		
PN: See Dealer		
Number	Description	Quantity
1	Hose, Fuel Filler	1
2	Hose, Breather	1
3	Clamp, Rubber Hose	2

Figure 13

3500, 4500 & 5500 Gas Rear View Fuel Fill



Dimension A = 6.85-8.5 inches (174-216 mm)

*6.6L 3500, 4500 & 5500 Gas shown

Figure 14

3500, 4500 & 5500 Gas Top View Fuel Fill

Dimensions:
B = 35.85 inches (860 mm)
C = 37.79 inches (960 mm)
D = 34.25 inches (870 mm)
E = 51.61 inches (1311 mm)

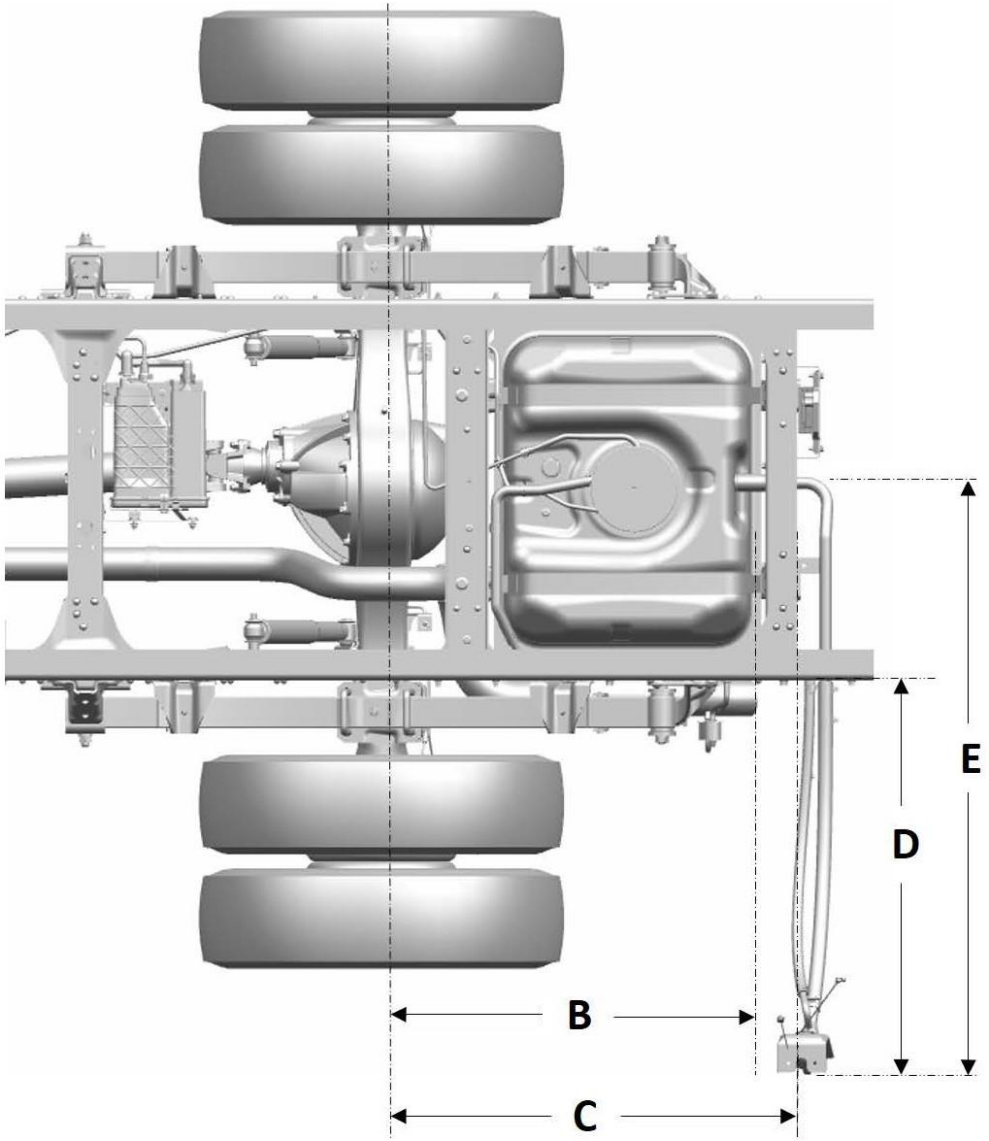


Figure 15

*6.6L 3500, 4500 & 5500 Gas shown

3500, 4500 & 5500 Gas 6.6L Installation Considerations

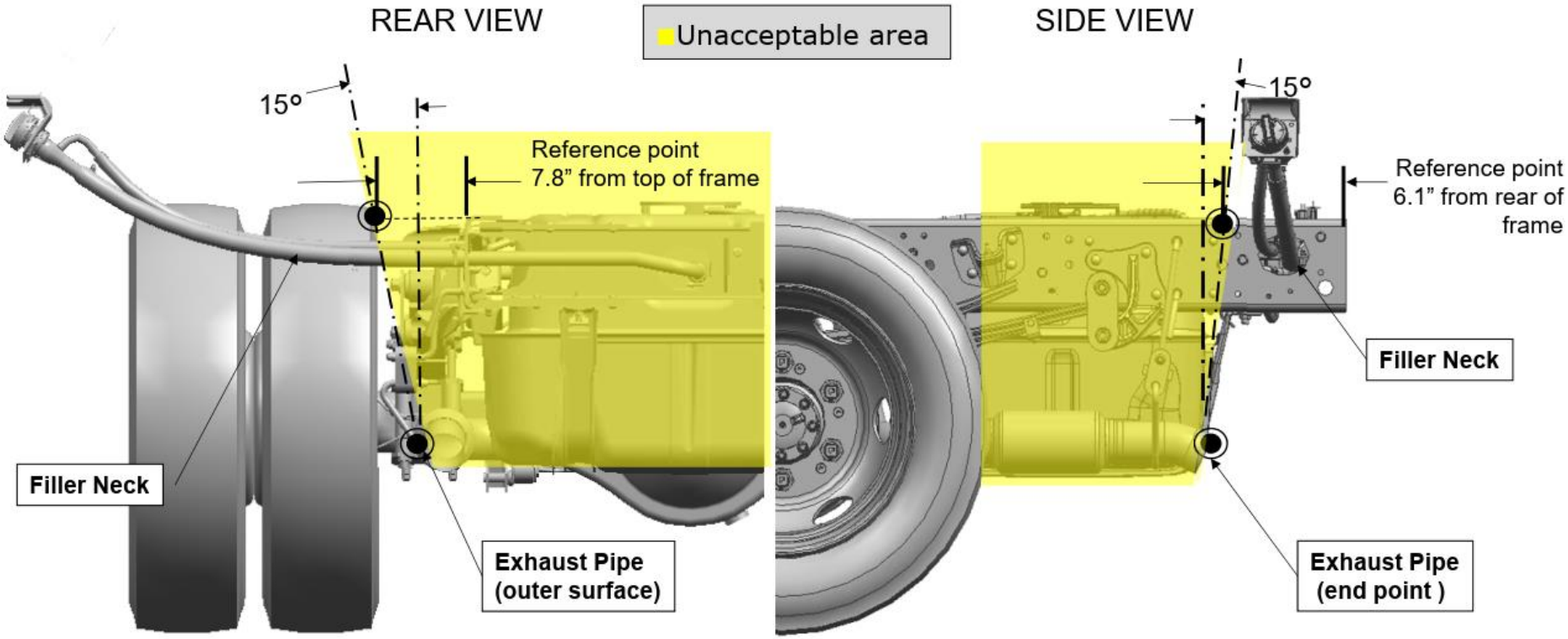
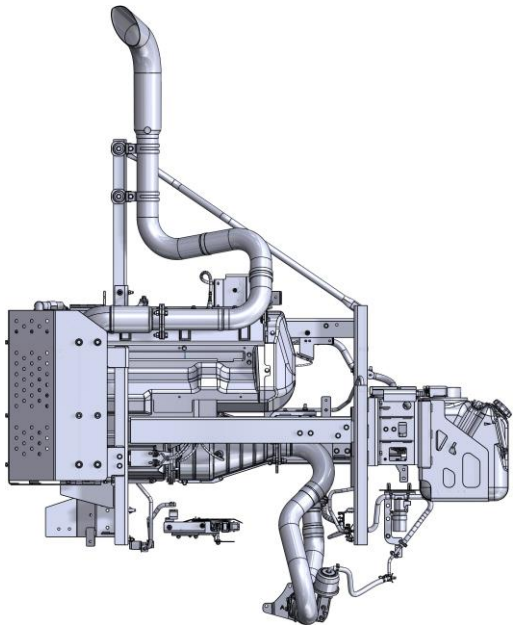


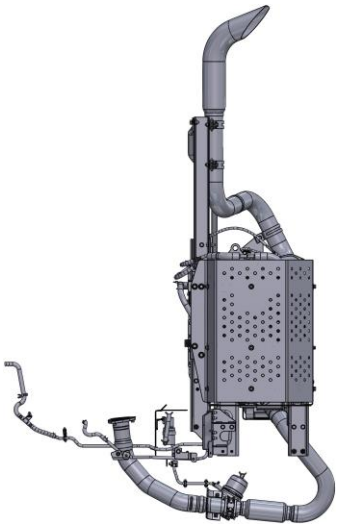
Figure 16

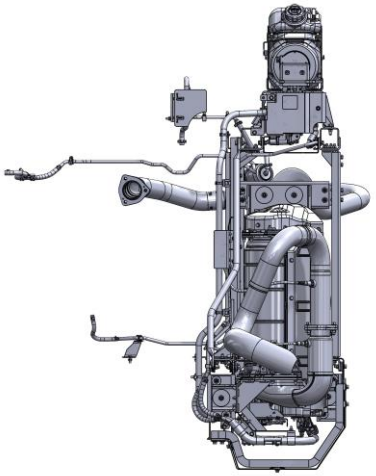
Notes:
1. Modification of the filler neck outside the frame rail must comply with FMVSS regulations for avoiding fuel dripping on hot surfaces.
2. Do not install the connection point of Filler neck, pipe and hoses in unacceptable areas shown in the side and rear view above.

4500 & 5500 Vertical Exhaust

- Available on 4500 HD 14,500 GVW, 4500 XD 16,000 GVW, 5500 XD DERATE 17,950 GVW & 5500 XD 19,500 GVW
- Vertical exhaust is available on 109, 132.5, 150, 176, 200, and 212 inch wheelbases
- Option Code NPV
- Not available on gas engine models
- Available as a port installed option only
- Available with in rail fuel tank only
- Available with regular cab only

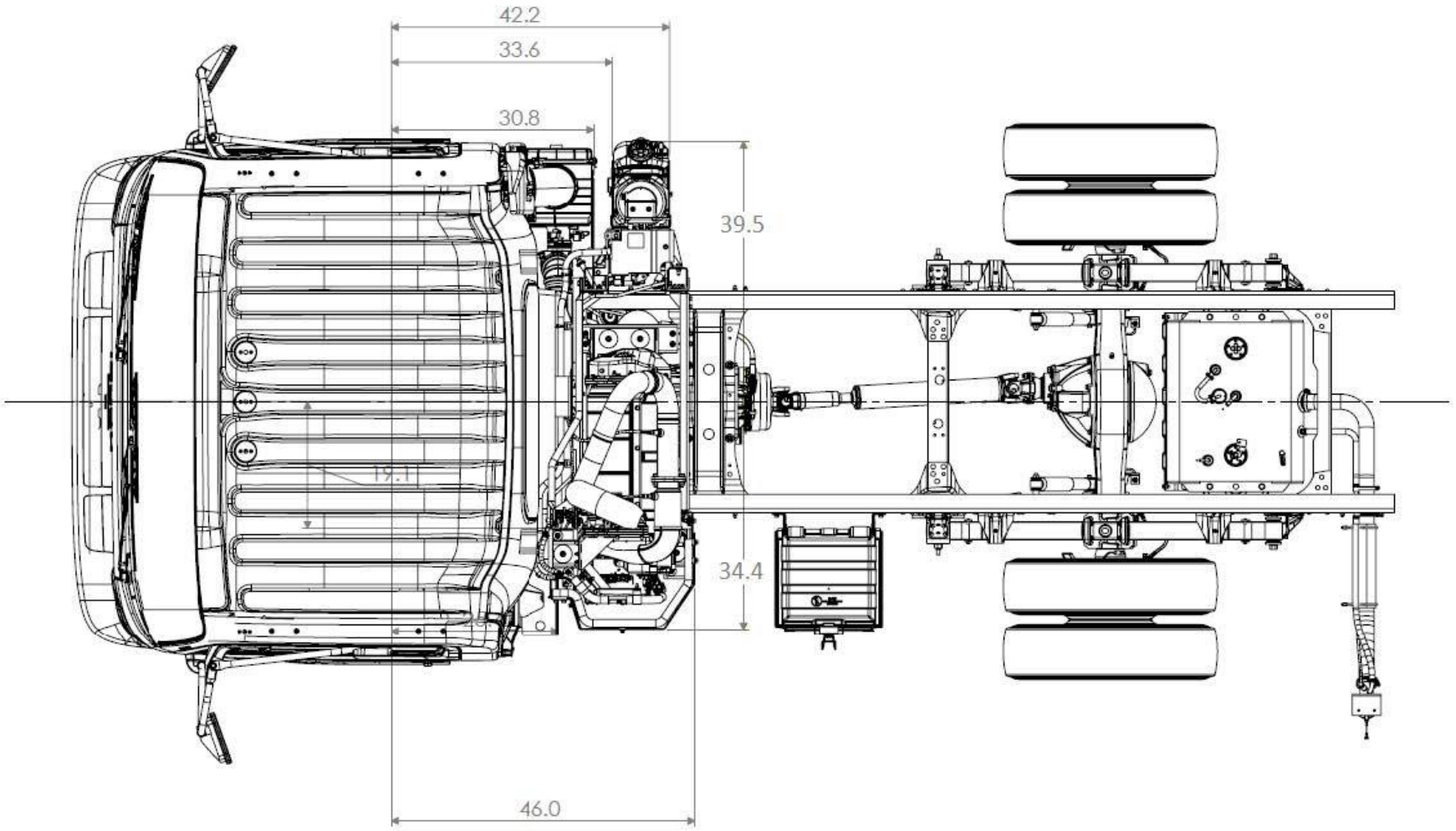






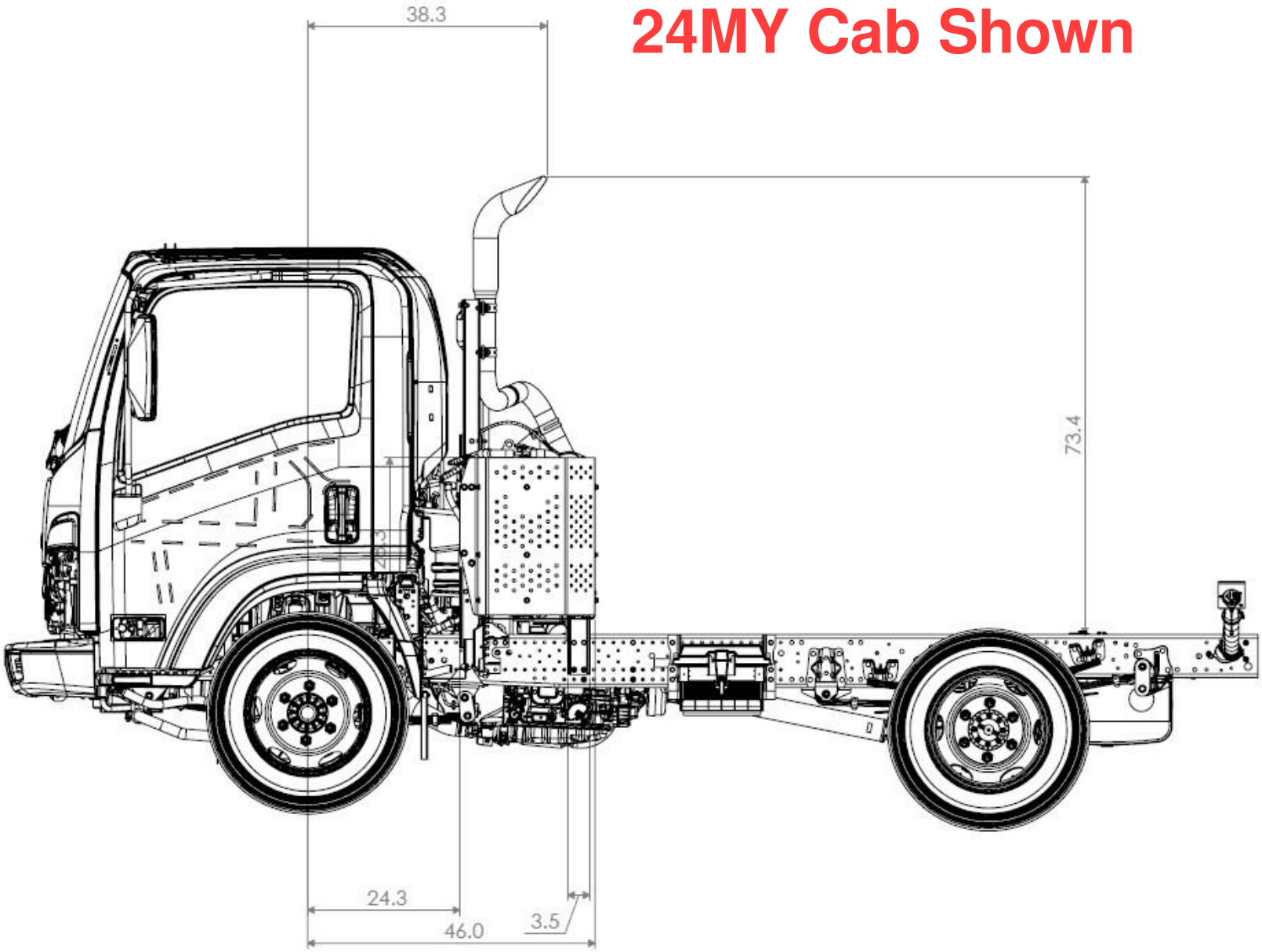
Vertical Exhaust - Top View

24MY Cab Shown



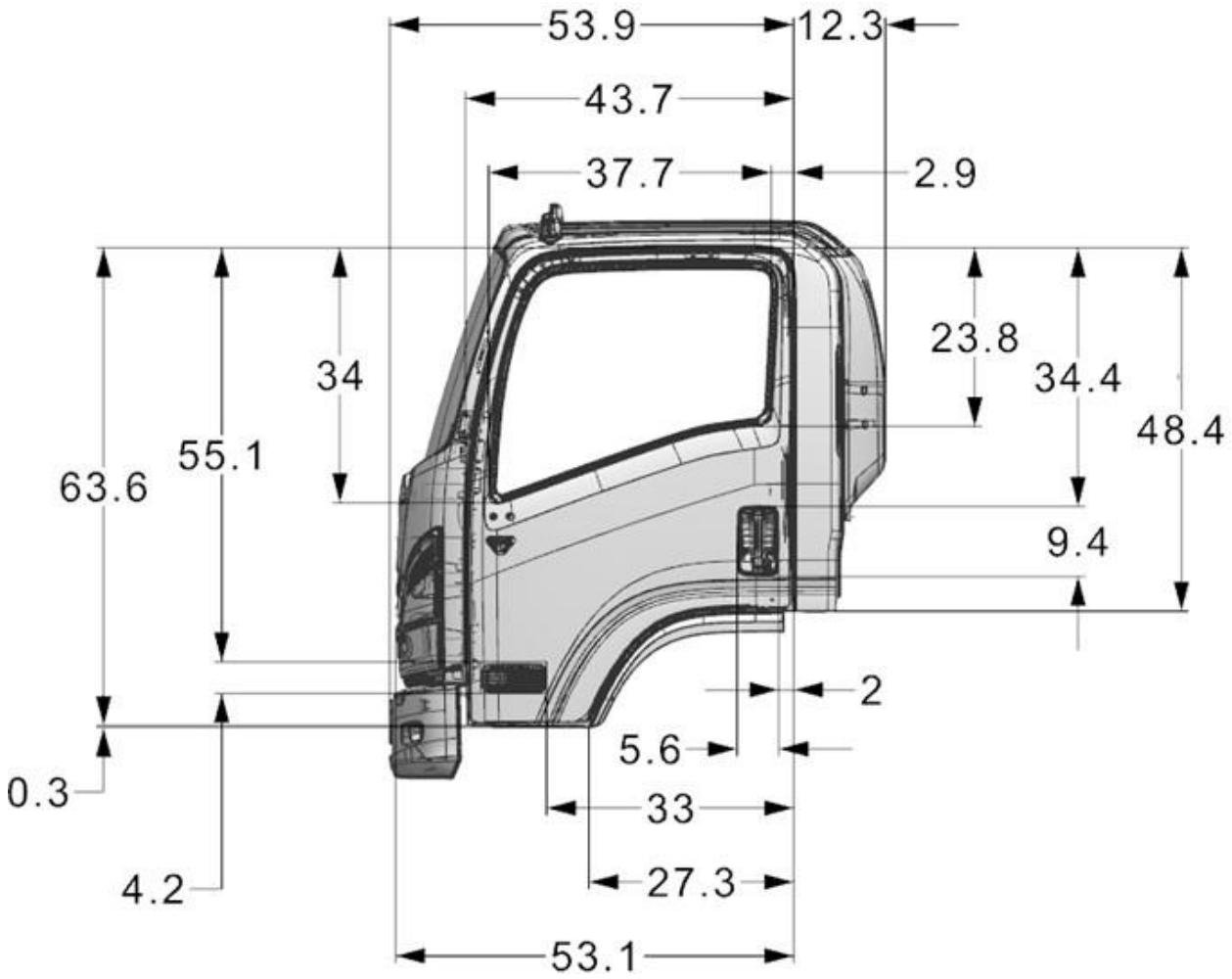
Vertical Exhaust - Driver Side View

24MY Cab Shown



2025 Chevrolet Low Cab Forward

25MY Diesel Regular Cab - Side View



Dimensions in inches

Figure 1

25MY Diesel Regular Cab - Front View

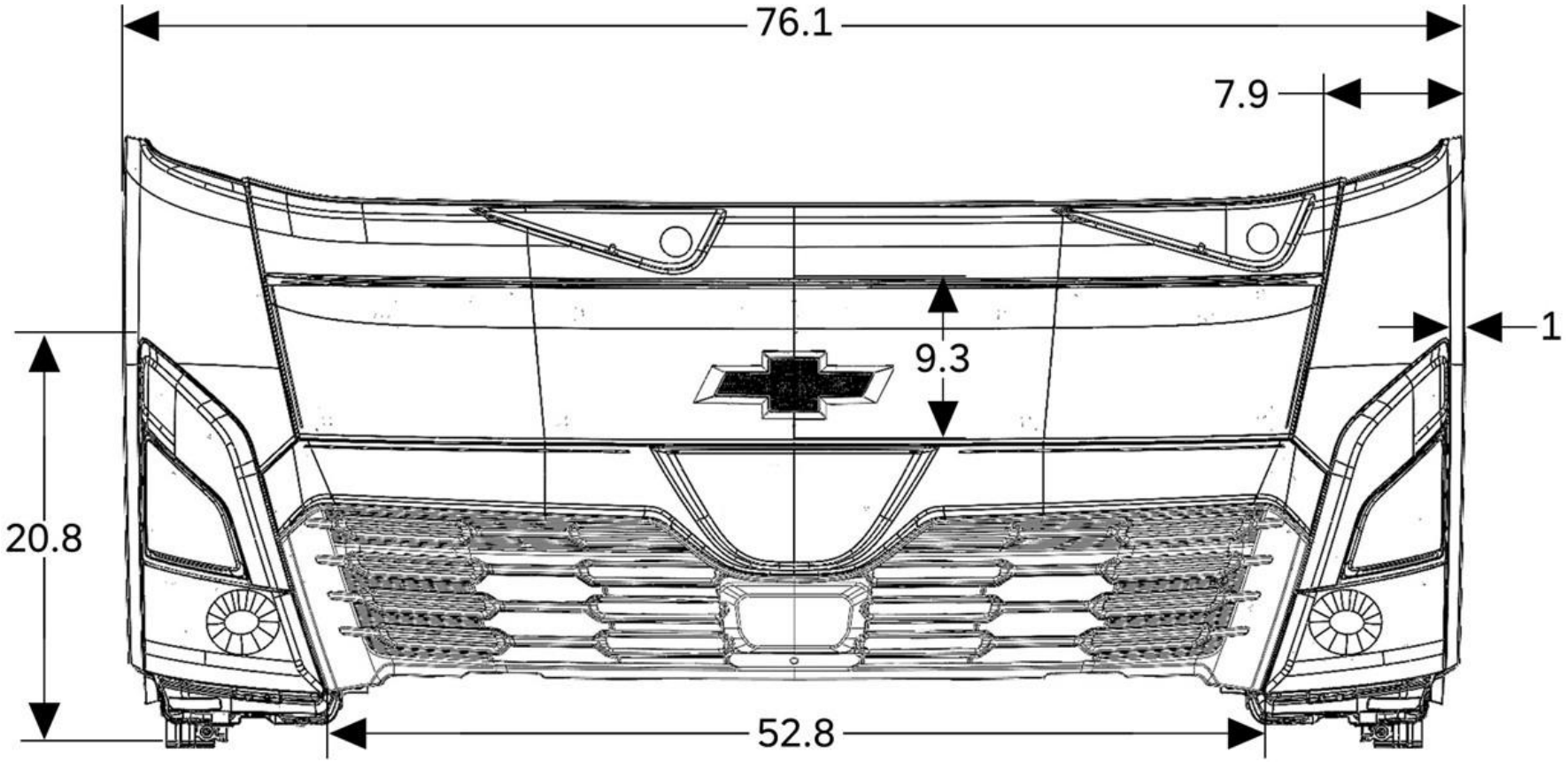


Figure 2

Dimensions in inches

25MY Diesel Regular Cab - Rear View

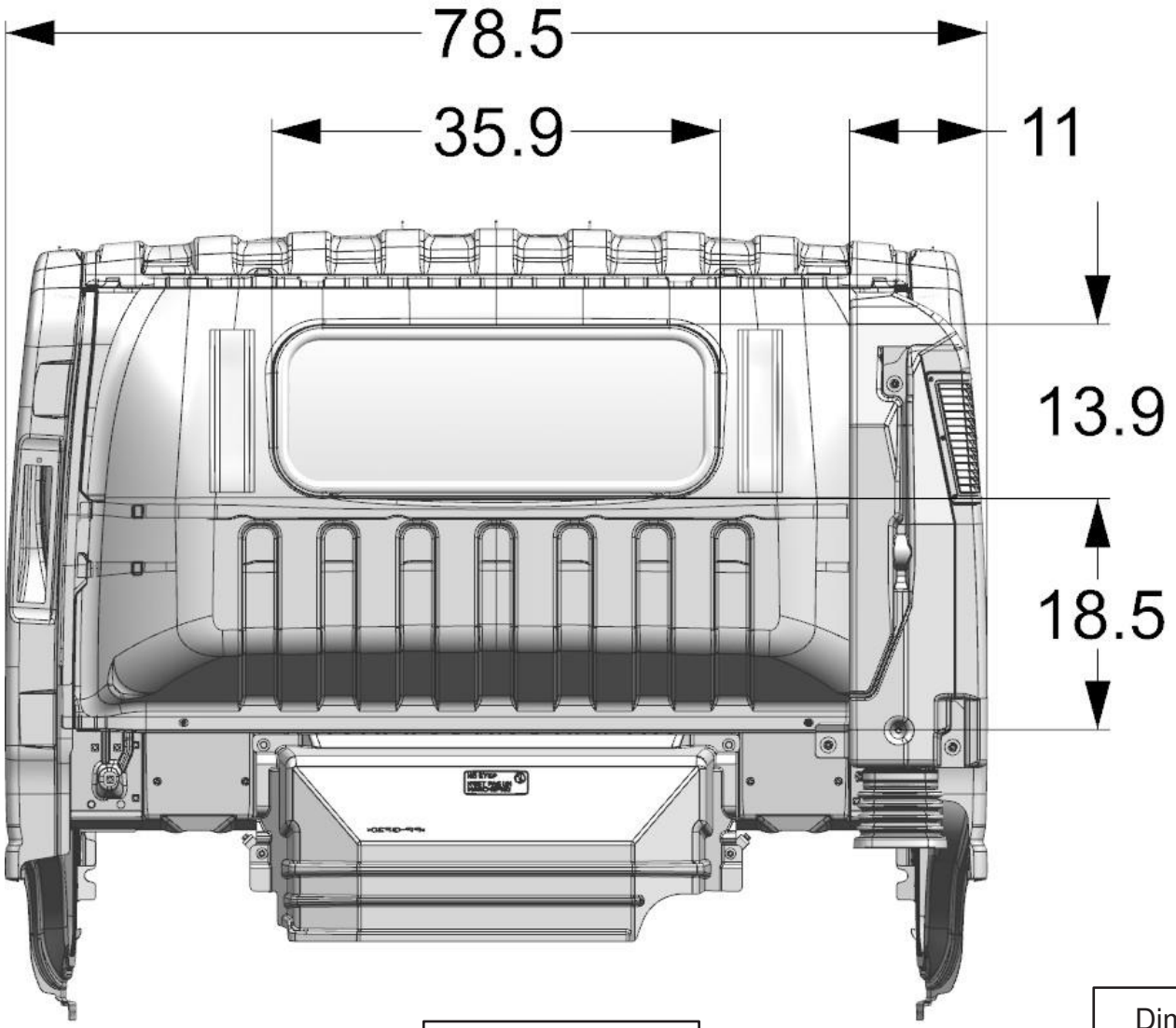


Figure 3

Dimensions in inches

Note:
top of window to top of roof 7.64 inches
top of window to top of cab roof lights 9.64 inches

25MY Diesel Crew Cab - Cab Side View

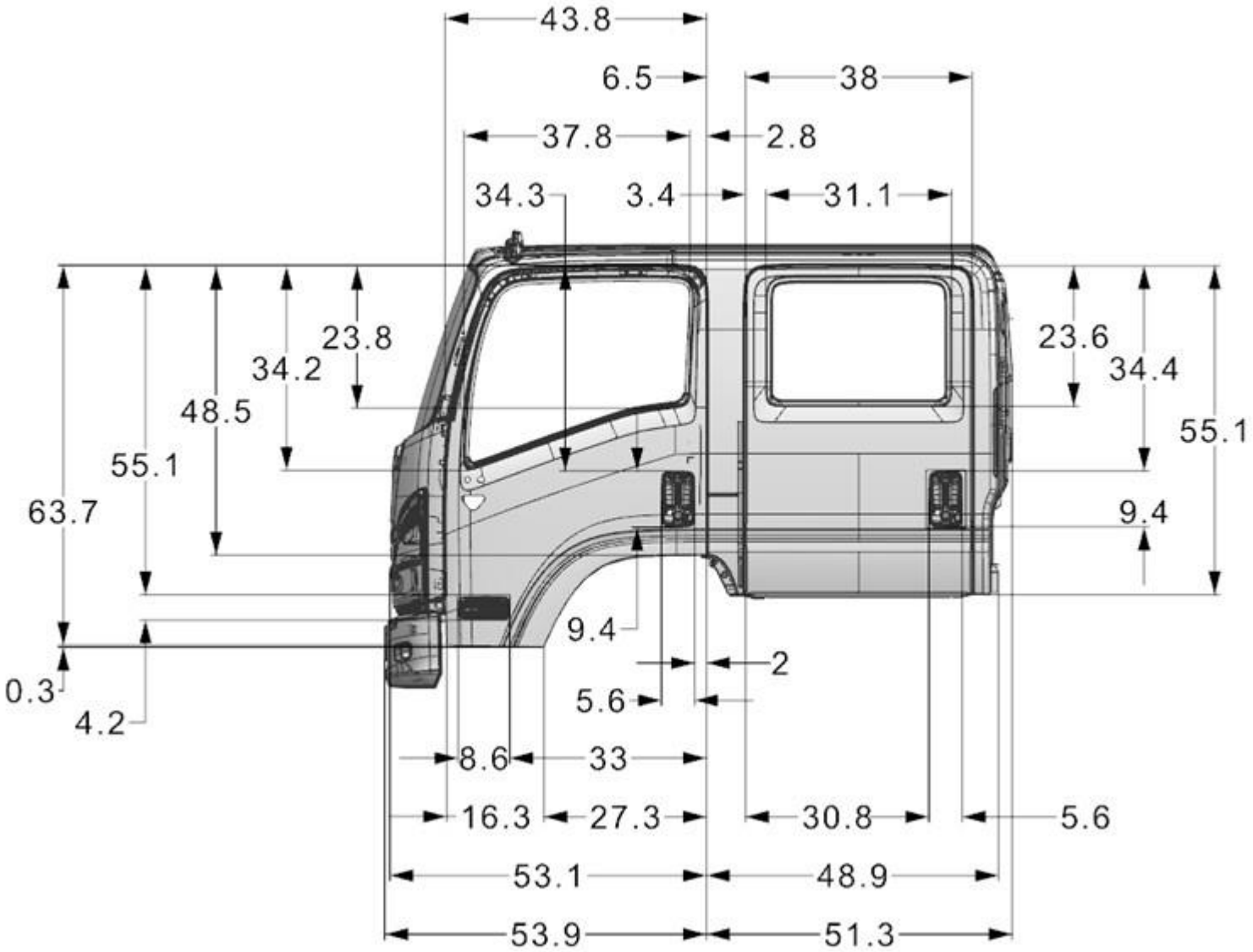


Figure 4

Dimensions in inches

25MY Diesel Crew Cab - Front View

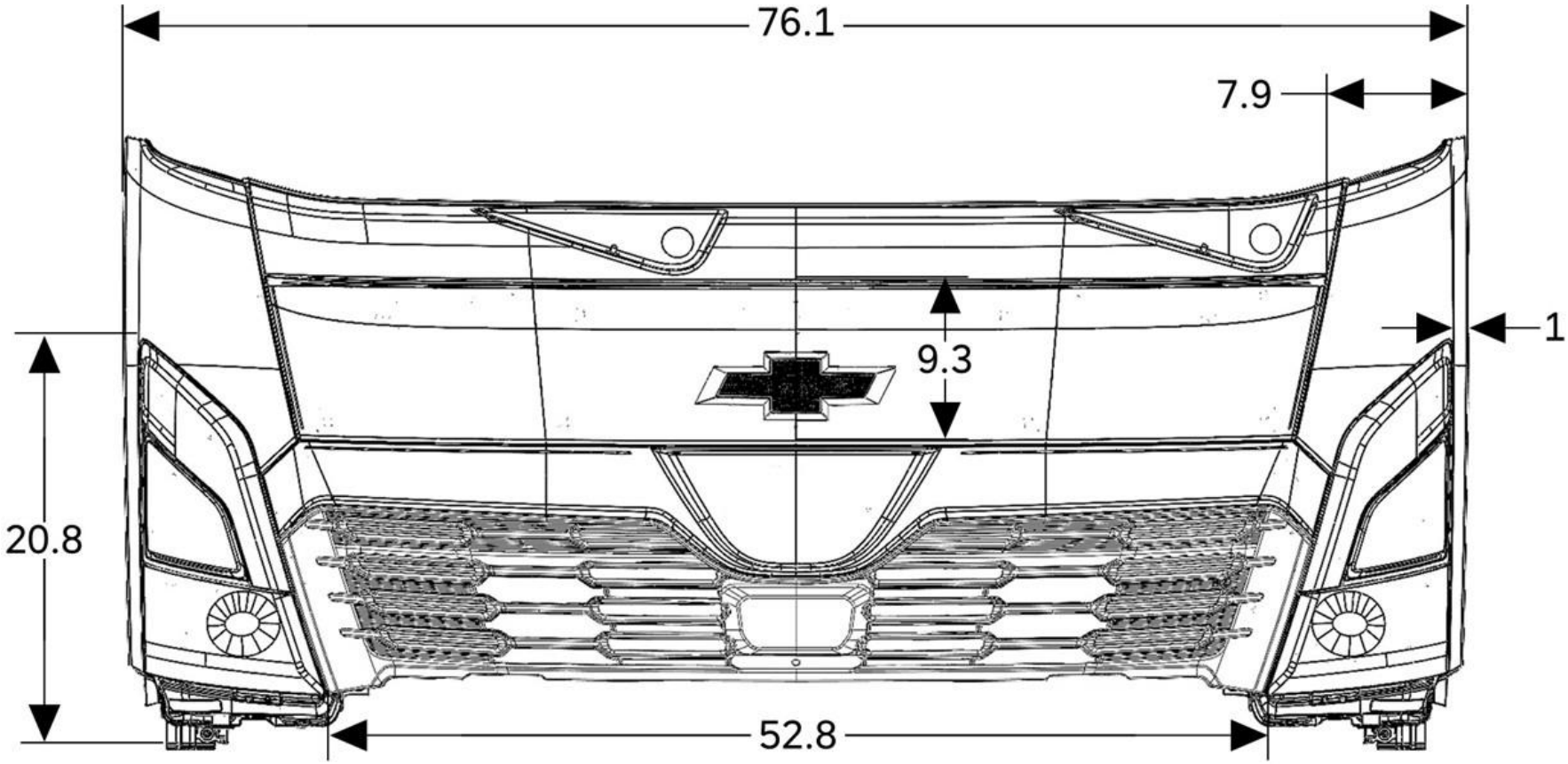


Figure 5

Dimensions in inches

25MY Diesel Crew Cab - Rear View

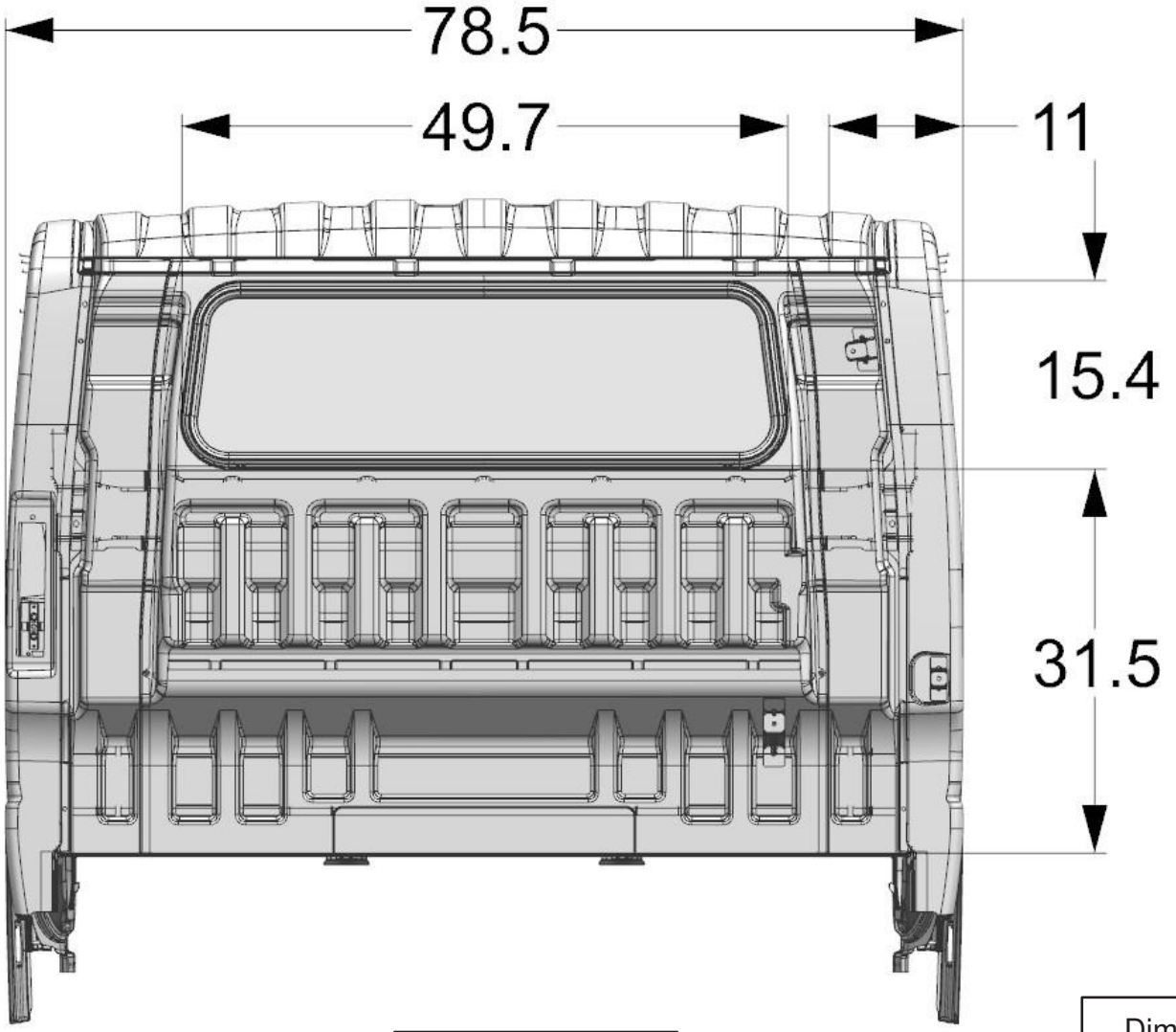
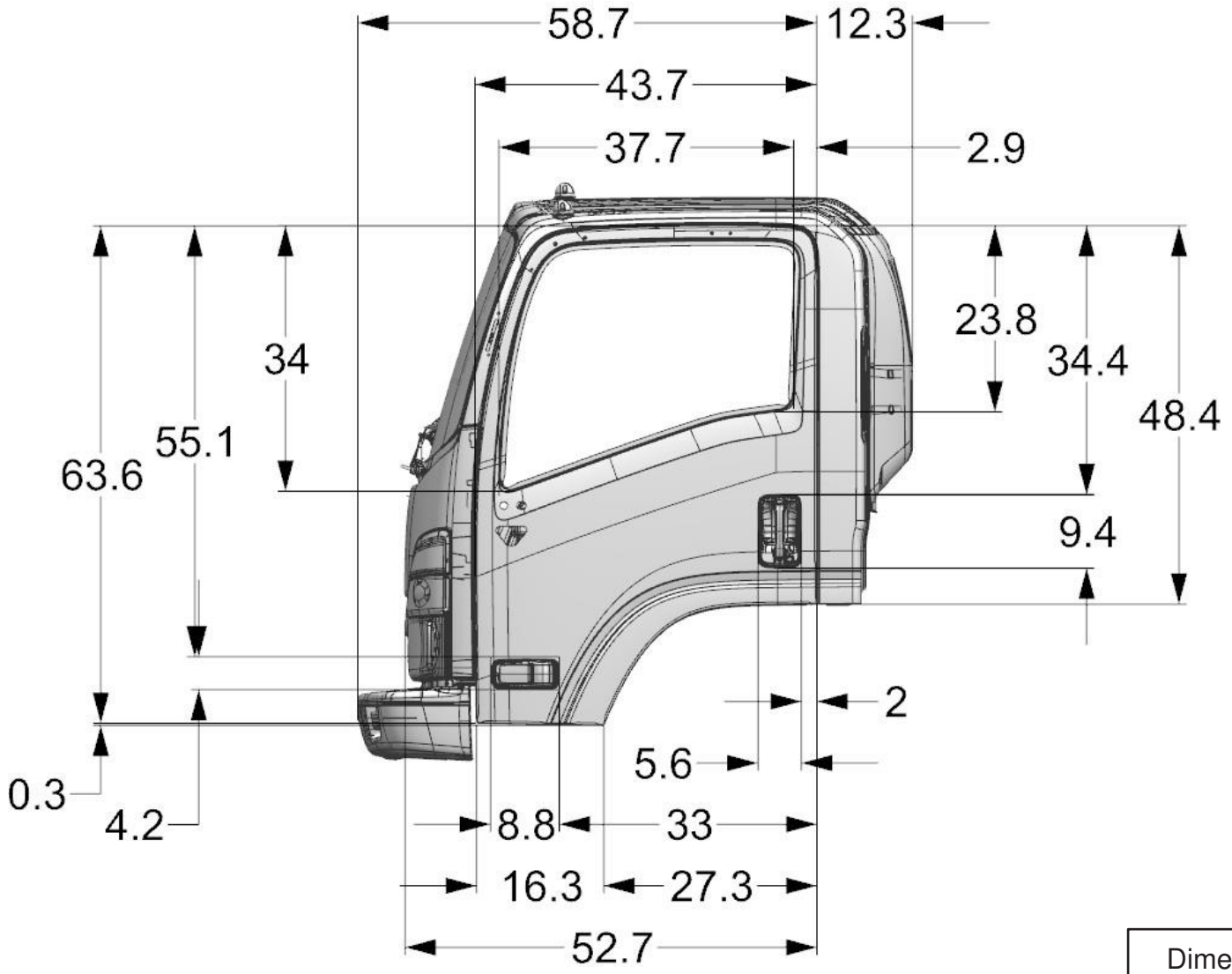


Figure 6

Dimensions in inches

25MY Gas Regular Cab - Side View



Dimensions in inches

Figure 7

25MY Gas Regular Cab - Front View

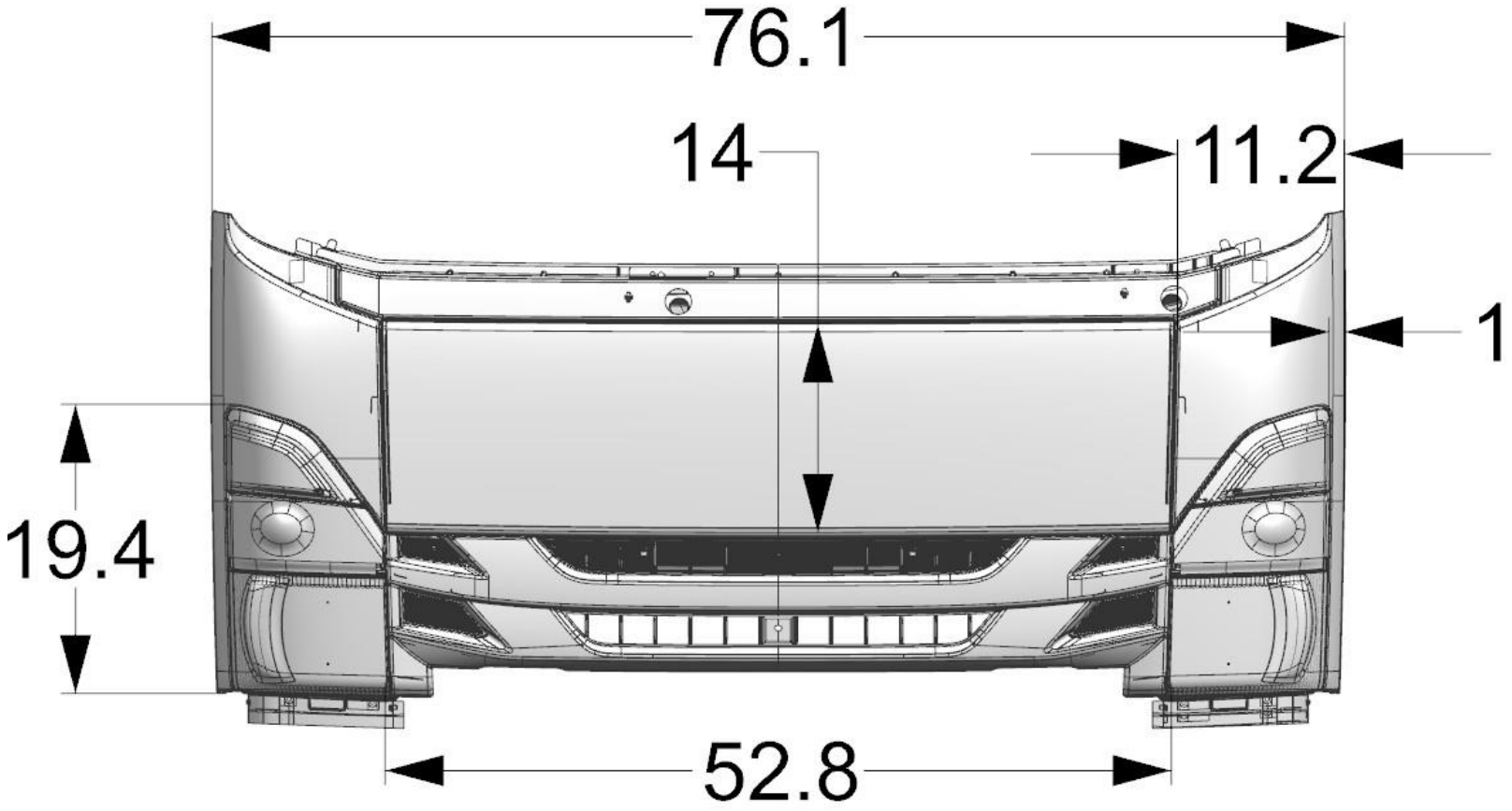


Figure 8

Dimensions in inches

25MY Gas Regular Cab - Rear View

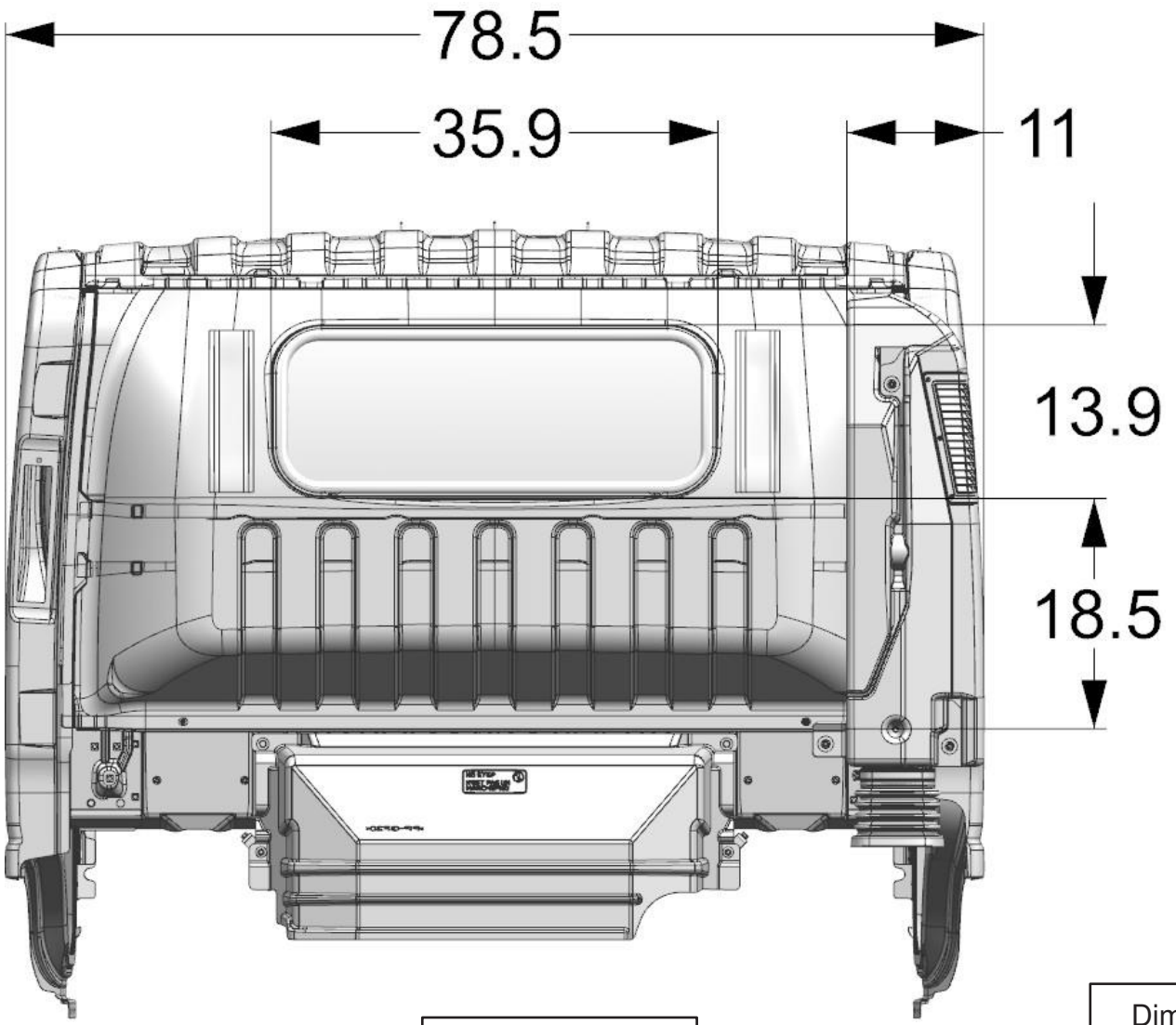


Figure 9

Dimensions in inches

Note:
top of window to top of roof 7.64 inches
top of window to top of cab roof lights 9.64 inches

25MY Gas Crew Cab - Cab Side View

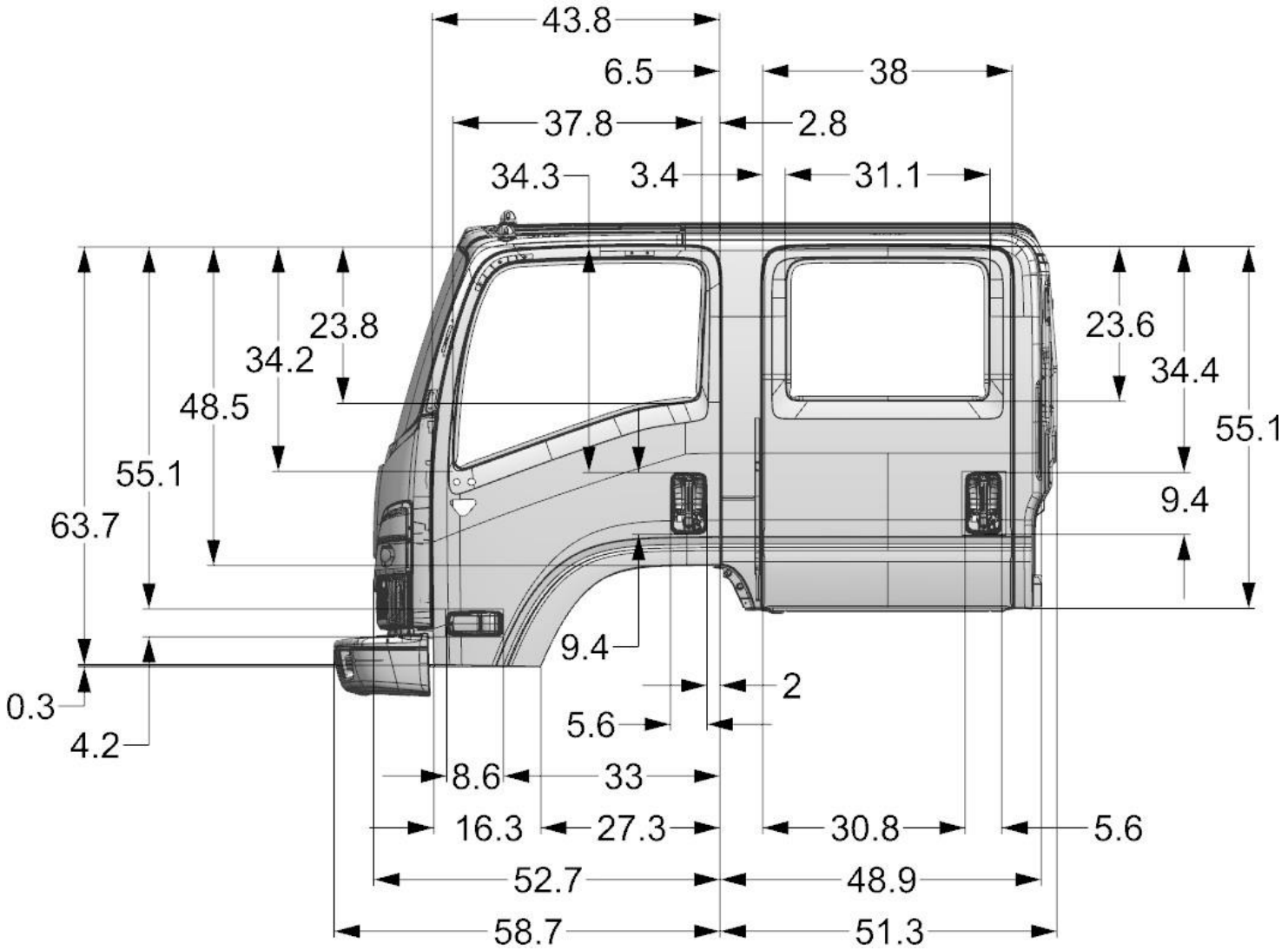


Figure 10

Dimensions in inches

25MY Gas Crew Cab - Front View

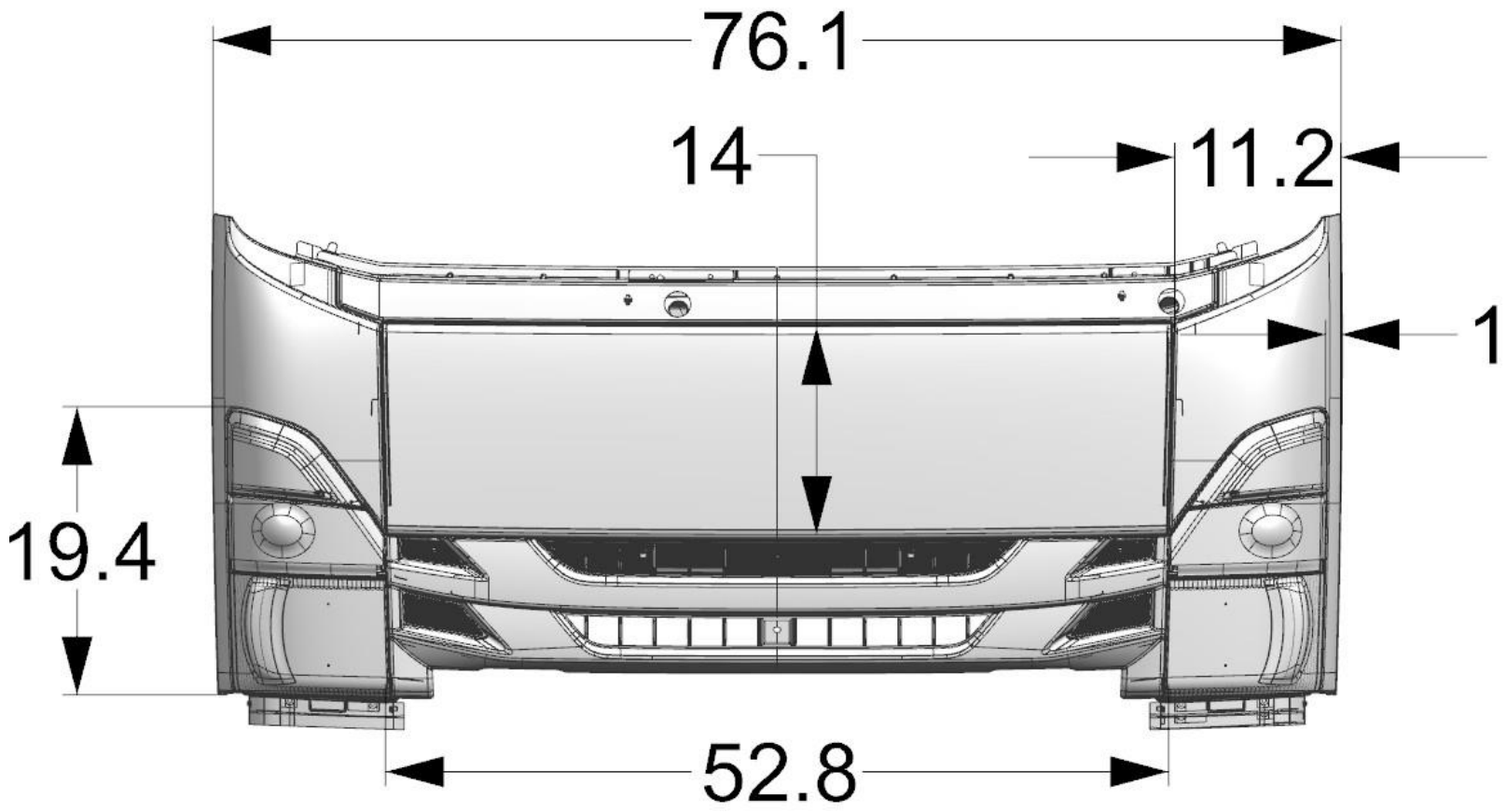


Figure 11

Dimensions in inches

25MY Gas Crew Cab - Rear View

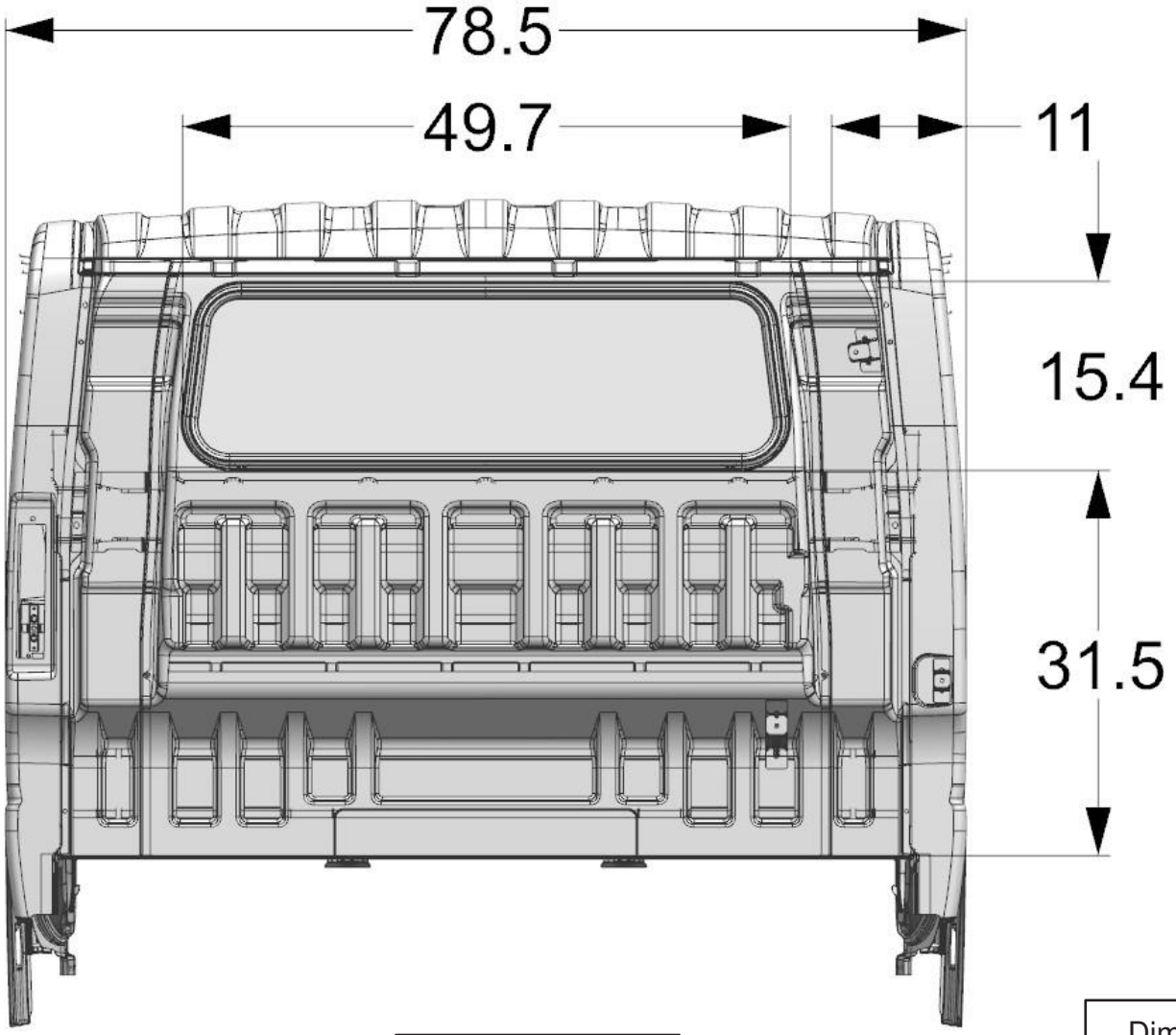
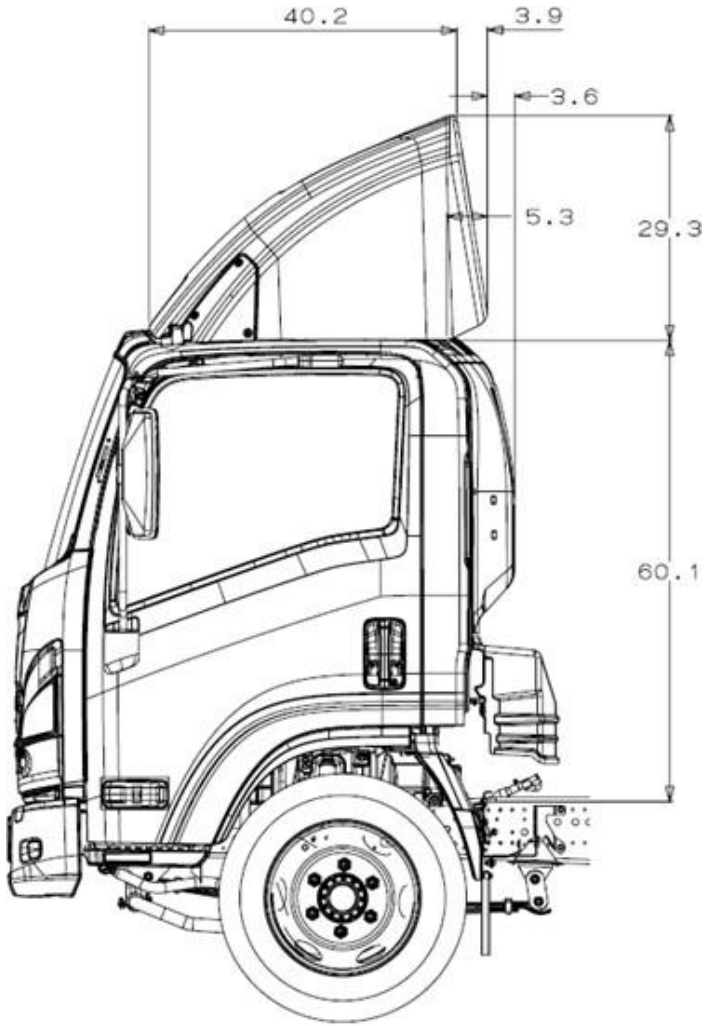


Figure 12

Dimensions in inches

Regular Cab - Front and Side View (Air Shield on Regular Cab only)



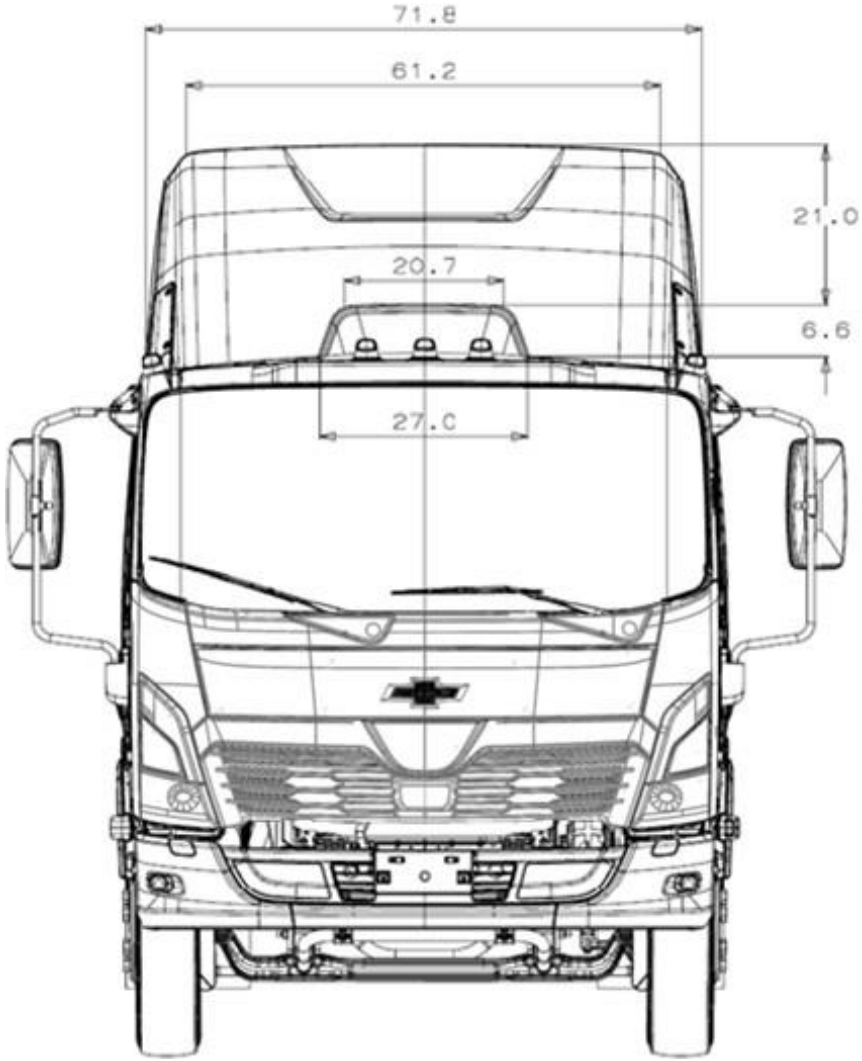


Figure 13

Dimensions in inches

2025 Chevrolet Low Cab Forward

6500 XD & 7500 XD Regular Cab - Side View

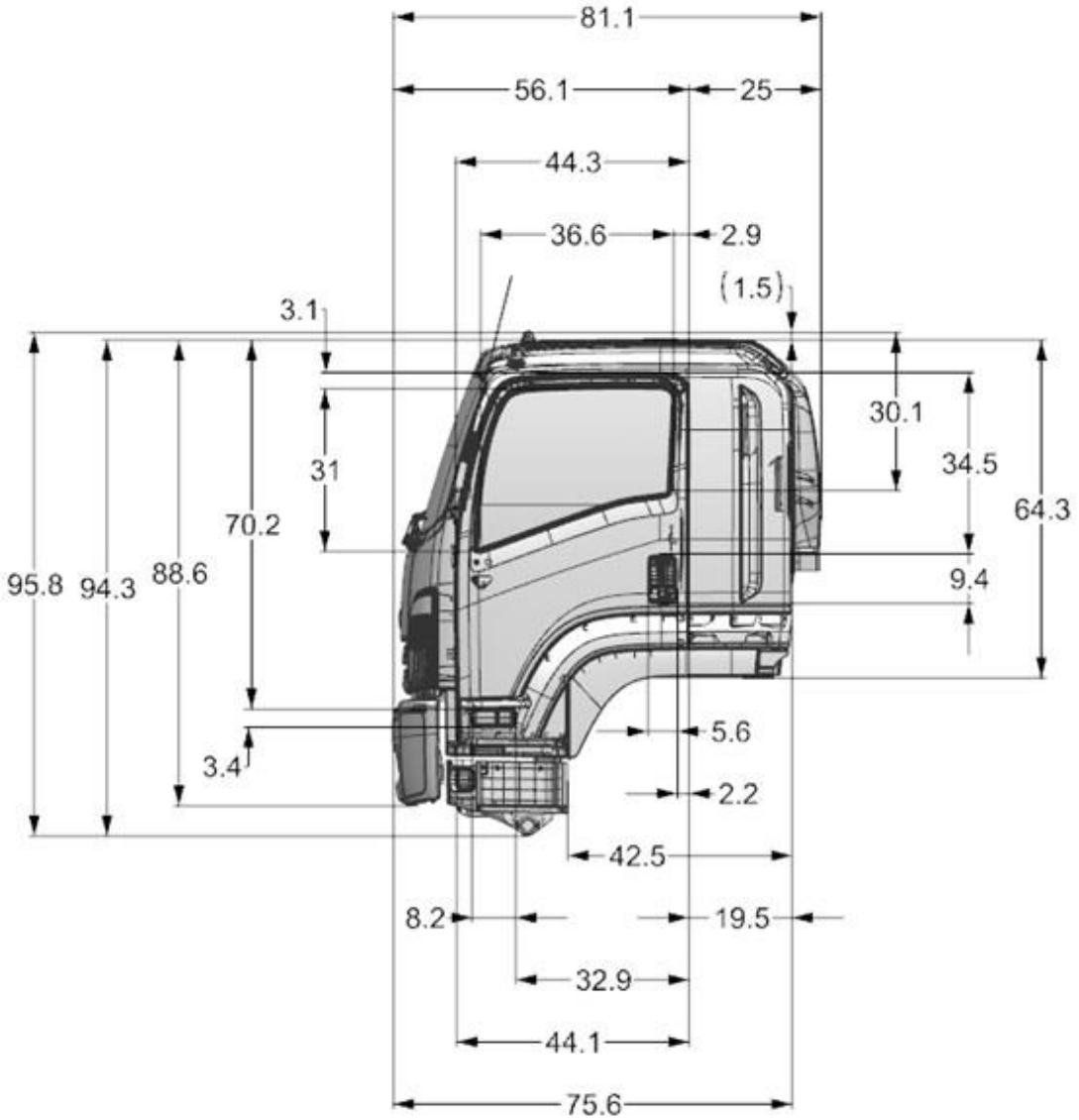
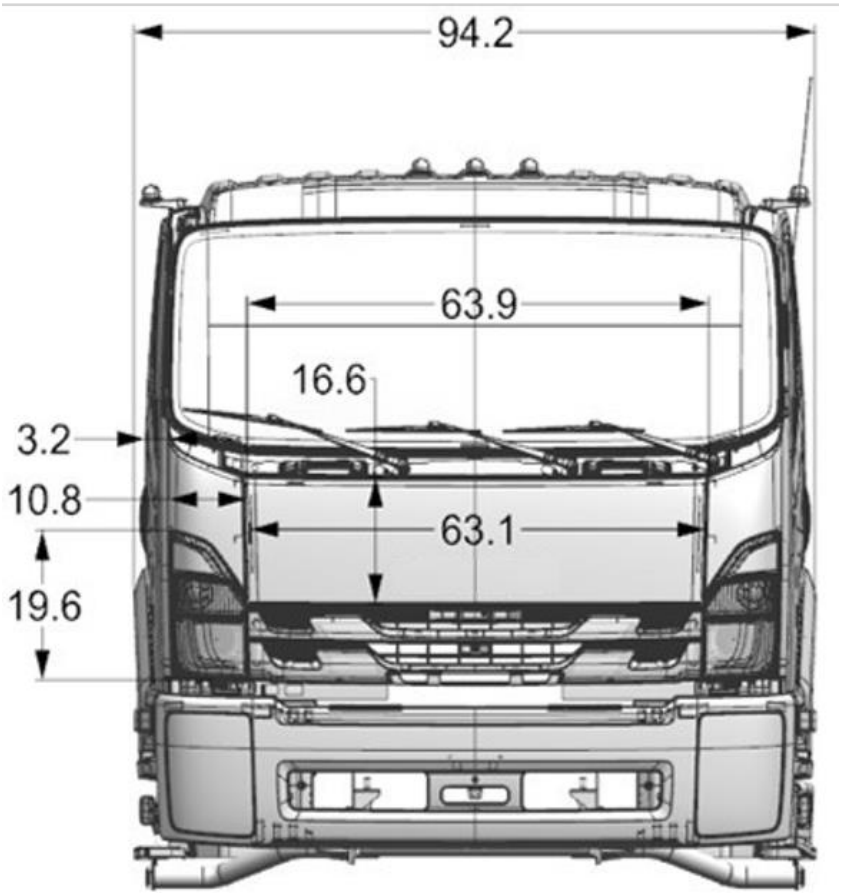


Figure 1

Dimensions in inches

6500 XD & 7500 XD Regular Cab - Front View



Dimensions in inches

Figure 2

6500 XD & 7500 XD Regular Cab - Rear View

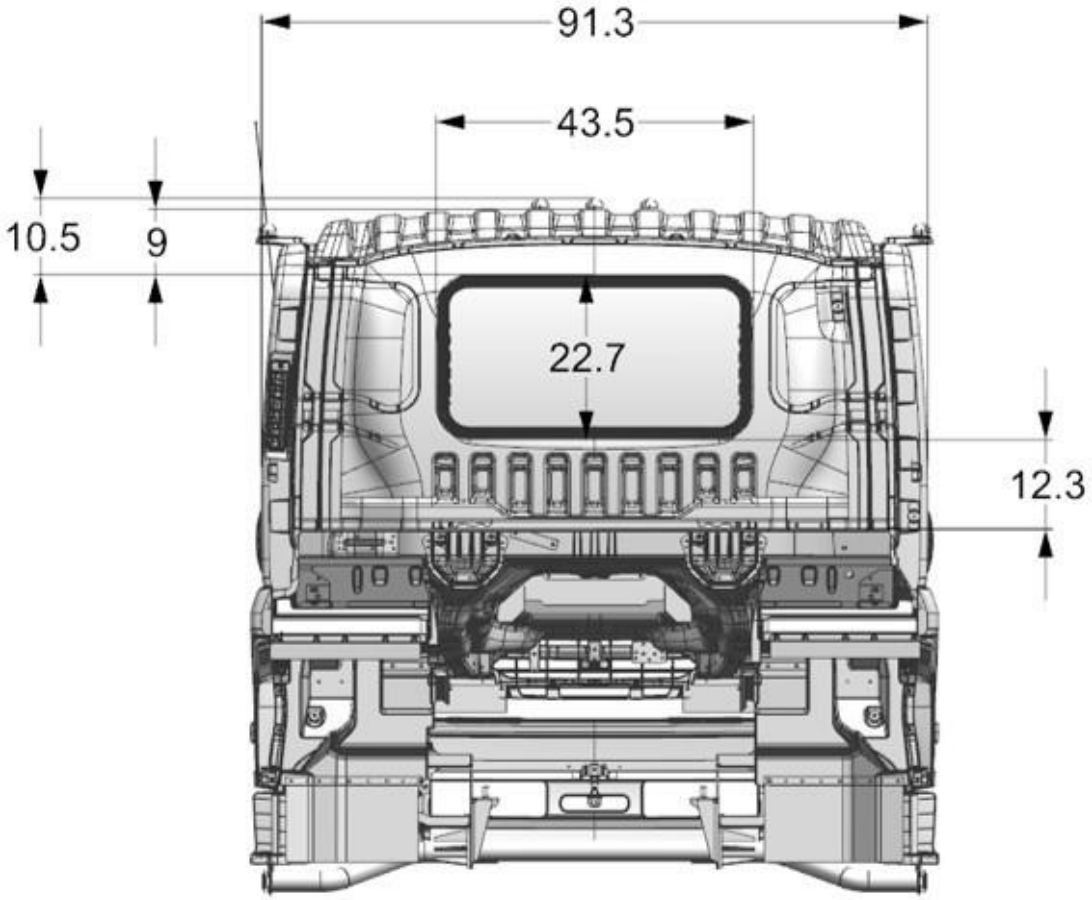


Figure 3

Dimensions in inches

Understanding DPF Regeneration

Understanding SCR (Selective Catalyst Reduction) and Diesel Exhaust Fluid (DEF)

The Selective Catalyst Reduction (SCR) system reduces nitrogen oxide (NOx) emissions emitted from a diesel engine. The SCR system reduces NOx by adding (injecting) Diesel Exhaust Fluid (DEF) into the exhaust system and inducing a reaction converting NOx into water vapor and nitrogen. This reaction takes place without any driver involvement. In addition, as long as the DEF tank is regularly filled with good quality DEF and at a satisfactory level above empty, the driver may never notice the SCR system.

It is the driver's responsibility to keep a good supply of quality DEF in the DEF tank for the proper operation of the SCR system. The SCR system will continuously monitor itself and the NOx reduction performance for any condition that will reduce or stop this emission reduction. The information provided in the remainder of this bulletin will outline the SCR system functions, common characteristics of the SCR system, DEF quality requirements and indicator and warning lights should the SCR system detect an incorrect fluid or if the DEF level in the DEF tank becomes too low.

SCR System Operation and The Driver

The SCR system requires good quality DEF for proper operation. The system is equipped with various sensors to detect the proper fluid is added to the DEF tank. The driver's only responsibility is to add good quality DEF to the DEF tank as necessary. The DEF level gauge on the instrument cluster shows the amount of DEF remaining. In addition, the Mutli Information Display (MID) will provide additional notice to encourage the driver to add DEF. In order to keep the SCR system operational and emissions compliant a warning system will activate when the DEF level becomes too low (see DEF Low Level Warning System).

After starting the engine, the SCR control module will pressurize the system and based on various sensor inputs begin to reduce NOx emissions. No driver action is necessary for the SCR system to function. After the engine is turned "OFF" the SCR control module will reduce system pressure and recover all DEF in the system piping back to the DEF tank. This action is taken as cold weather protection.

Note: Drivers may notice a buzzing noise from the driver side of the vehicle near the DEF tank a few moments after turning "OFF" the engine. This is a function of the SCR system and should be considered normal.

During cold weather seasons DEF may freeze in the DEF tank. Once the engine is started, engine coolant circulates through the DEF tank to thaw it when frozen and prevent it from freezing while the engine is running. The vehicle can be driven normally when DEF is frozen in the DEF tank.

Adding DEF

Under normal conditions DEF can be added simply by removing the DEF tank fill cap and pouring in DEF. A few points to be aware of when transferring DEF from its original container to the DEF tank are:

1. Be sure the outside of the container is clean from any debris.
2. If using a funnel or pump to transfer DEF, be sure to use equipment exclusively for DEF made from polyethylene resin or stainless steel.
3. Do not overfill the DEF tank.

Take care not to spill DEF. When DEF dries it will leave a crystalline residue. This condition is normal. Wash, with water, or wipe away the residue to prevent it from entering the DEF tank. If DEF is spilled on the body or frame, it may cause the metal to rust, so wipe it off and then rinse it away with water.

Note: For cold weather climates (ambient temperatures below -11°C/12°F)

GM does not recommend parking the vehicle for long periods with the refill diesel exhaust fluid (DEF) warning light on in cold weather. The DEF low level warning system may not reset when DEF is added. Take the following actions to avoid this condition in cold weather.

1. Refill the DEF as soon as possible after parked vehicle.
2. Turn the engine control switch to the “ON” position from the “LOCK” position.
3. Wait for the warning buzzers and warning lights to turn off.
4. If the buzzer does not stop, return the engine control switch back to the “LOCK” position and add more DEF, and then start over the step (2) above.
5. Turn the engine control switch to the “LOCK” position. Turn the engine control switch to the “ON” position from the “LOCK” position.
6. Wait for the warning buzzers and warning lights to turn off.
7. If the buzzer does not stop, return the control switch back to the “LOCK” position and add more DEF, and then start over the step (2) above.
8. Turn the engine control switch to the “LOCK” position.

DEF Low Level Warning System

To avoid running out of DEF the SCR system will turn on warning and indicator lights and reduce engine power in progressive stages to encourage adding DEF. The following is a summary of the diesel exhaust fluid (DEF) low level warning lights, indicator lights and engine power reductions. Continuing to drive for too long after these lights come on will eventually result in a severe vehicle speed limitation. These warning and indicator lights will go out automatically and engine power will be restored to normal after the SCR system detects that the DEF tank is refilled with DEF.

Stage 1: When the remaining level of DEF becomes excessively low the DEF gauge will change color from green to amber. In addition, warning and indicator lights will come on as shown in the table and engine power will be reduced so the vehicle speed will not exceed 55 MPH (89 km/h).

Stage 2: If driving is continued without adding DEF (approximately 200 miles (320 km)) the DEF gauge, warning and indicator lights will begin blinking. Again, engine power will be reduced so the vehicle speed will not exceed 35 MPH (56 km/h).

Stage 3: If driving is continued until the DEF tank is empty, the DEF gauge will change color from amber to red and the warning and indicator lights will begin to blink faster. Engine power will still be reduced so the vehicle speed will not exceed 35 MPH (56 km/h). The vehicle speed will be limited to 5 MPH (8 km/h) either when the vehicle is stopped after driving further on (approximately 35 miles (56 km)) or when the engine is restarted.

Stage 4: The DEF gauge is red, the indicator light is blinking, and the buzzer is beeping continuously indicates the vehicle speed is limited to 5 MPH (8 km/h).

DEF Quality and Storage

Diesel Exhaust Fluid is a urea-based chemical reactant designed specifically for use in SCR systems to reduce NOx emissions. The raw materials used to produce DEF include natural gas, coal or other petroleum products. DEF is prepared by combining high purity urea with deionized water to create a 32.5% solution. DEF and similar urea-based products are widely used today for a variety of agricultural and industrial needs. Chevrolet LCF DEF is API certified and meets ISO22241 specifications for purity and composition, while being:

- Non-toxic and non-polluting
- Non-flammable
- Stable and colorless
- Non-hazardous

DEF should be stored in an indoor place with good ventilation avoiding direct sunlight, if possible. Be sure containers are sealed properly to avoid contamination and evaporation. To maximize shelf life, ideal storage temperature is below 30°C/86°F and above -11°C/12°F to prevent freezing. If frozen DEF can be thawed and used without any concerns.

DEF Safety

Though it should be harmless for physical contact, there may be a rare case to induce inflammation depending on the body constitution, so make sure to take following actions.

– In the event that the fluid does come into contact with your skin, wash it off with water. Although it is rare, a person with sensitive skin may suffer from irritation. If you come into contact with DEF, flush the affected area with soap and/or water. If irritation or redness develops or persists, seek medical attention.
– If it is accidentally swallowed, drink 1- 2 glasses of water or milk and seek immediate medical attention.
– If it does come into contact with the eyes, immediately rinse it off with a large amount of water for at least 15 minutes, and then seek medical attention.

Customer Assistance in locating DEF

DEF is available from all authorized GM dealers. In addition, the U.S. Department of Energy has created an on-line DEF locator that can be accessed at www.afdc.energy.gov/afdc/locator/def/ . The American Petroleum Institute (API) also maintains a list of API-certified distributors of DEF on their web page at http://www.apidef.org/

Preparation of New Chevrolet LCF Vehicles for Storage Beyond 30-days

In the event new Chevrolet LCF vehicles are to be stored for extended periods beyond thirty (30) days, the following additional maintenance items are suggested:

NOTE: When new Chevrolet LCF vehicles are stored outside, particularly along coastal areas, paint and bright metal deterioration will be more rapid due to prevailing salt- water atmosphere and high humidity. For this reason, it may be necessary to wash each vehicle and wax the chrome and stainless-steel metal parts at least once a month.

NOTE: To prevent the possibility of a build-up of mildew, open the doors to air out each vehicle at least once a month depending upon climatic condition. If there is condensation, wipe the condensation dry with a clean cloth and air out the vehicles.

A. "Block out" mechanical clutches by holding the clutch pedal partially depressed (approximately 1/2 way) with wooden blocks or bracing. This will prevent clutch plates from rusting to the flywheel and clutch pressure plate.
B. Remove windshield wiper arms and blades and store in the vehicle.

In addition, the following procedures are to be carried out at thirty (30)-day intervals and instituted after the first thirty (30) days of vehicle storage.

A. Check the battery water level and specific gravity. **If voltage is under 12.20 volts, recharge the battery**.
B. Connect the battery ground cable. Start engine in P range and let idle for at least twenty (20) seconds.
C. Raise the idle up to 2,000 rpm for fifteen (15) minutes. Be sure there is sufficient fuel in tank. Each new Chevrolet LCF vehicle is supplied with approximately 1.5 gallons of fuel. Do not let the tank run dry.
D. Shift the transmission lever to all positions while the engine is running.
E. Move the vehicle for a distance of at least thirty (30) feet to lubricate the wheel bearings.
   NOTE: The vehicle should be re-parked so that a different area of the tires is in contact with the ground to reduce the possibility of tire damage.
F. Turn the steering wheel lock-to-lock while the vehicle is moving slowly.
G. Apply and release the service and parking brakes several times (do not apply the parking brake when the vehicle is moving).
H. Stop the engine.
I. After warm-up operation, check under the vehicle to make sure there is no oil or fluid leakage.
J. Disconnect the battery ground cable.
K. Drain the brake air reservoirs (if appropriate) and close the drain cocks.

New GM Vehicles Stored Beyond One Year

In the event new GM vehicles are to be stored for extended periods beyond one (1) year, the following additional maintenance is required every twelve (12) months:

A. Replace engine oil, coolant, brake fluid, transmission oil, differential gear oil and all other fluids.
B. Drain and refill diesel exhaust fluid (DEF).
C. Drain and refill fuel (diesel and gasoline).
D. Replace fuel filters (diesel only).

Limited Slip Differential Fluid

Should it become necessary to add fluid to the rear axle of a chassis equipped with a limited slip differential please consult the GM Upfitter team for the appropriate selection of lubricants to be used.

Axle Ratio	Housing Stamp Stand Axle	Stamp LSD Axle
4.300	SO	HO
4.555	C9	D9
4.777	S9	H9
5.125	C8	D8
5.375	S8	H8
5.571	A7	B7
5.857	C7	D7